Index to Volume 3

Original Articles and Abstracts

Author and subject entries are included in one alphabet. Asterisk (*) indicates original article published in *Cancer Research*. Double asterisks (**) indicate all papers read before the American Association for Cancer Research, Inc., except those that were indexed in Volume 2. All articles not otherwise designated are abstracts (or book reviews).

Aaron, J. B., 790
Abbott, K. H., *et al.,* 715 (2 abs)
—— *See* Courville, C. B., 716
Abdomen and vagina, total hysterectomy. Danforth, W. C., 791
—— hemangioendothelioma, and intestinal adenocarcinoma induced by methylcholanthrene. White, J., *et al.,* 554
—— undescended testicle in, with torsion of cord and embryonic cell carcinoma. Whittington, C. T., 565
—— tumors, peritoneoscopic diagnosis. Garrey, W. E., 561
Abell, I., Jr., 801
Abels, J. C., *et al.,* 486
—— **Pack, G. T., and Rhoads, C. P.** Metabolic studies in patients with cancer of the gastrointestinal tract. XVII. The conjugation of phenols, *177, 277
—— *See* Rhoads, C. P., 787
Abeshouse, B. S., *et al.,* 796, 797
Abrahamson, R. H., *et al.,* 424
Acanthosis nigricans associated with lung carcinoma. Levin, O. L., *et al.,* 279
Ackermann, A. J., 71
Acosta-Sison, H., *et al.,* 790
Acrolein, possible carcinogenicity, Steiner, P. E., Steele, R., and Koch, F. C., *100, 207
Acromegaly, treatment. Goldberg, M. B., *et al.,* 567
—— tumor infiltration of cavernous sinuses. Spark, C., *et al.,* 567
Adair, F. E., 421
—— *See* Farrow, J. H., 5[illegible]
Adair, F. L., 718
Adamantinema, floor of right nostril, in child. Berkove, A. B., 798
—— tibia. Dockerty, M. B., *et al.,* 280
—— ulna. Anderson, C. E., *et al.,* 280
Adams, H. D., 801
Adams, J. R., Jr. *See* Hartwell, J. L., *122
Adams, R., 640
Adams, W. E., *et al.,* 279, 639 (2 abs)
Adelstein, L. J., 887
Adenocarcinoma, colloid, of urachus. Hughes, P. B., *et al.,* 568
—— cylindroma type, metastases. Dockerty, M. B., *et al.,* 647
—— glandular stomach, 20-methylcholanthrene-induced. Stewart, H. L., and Lorenz, E., **123
—— goblet cell, urinary bladder. Sumner, W. A., *et al.,* 798
—— intestinal, and intraabdominal hemangioendothelioma induced by methylcholanthrene. White, J., *et al.,* 554
—— kidney, brain metastasis. Musa, A. B., *et al.,* 797
—— —— metastatic. Lane, C., 797
—— mammary, transplanted, secretory changes initiated by pituitary lactogenic hormone. Eisen, M. J., 707
—— Meckel's diverticulum. Albright, H. L., *et al.,* 640
—— pyloric stomach, and other gastric neoplasms induced with carcinogenic hydrocarbons. Stewart, H. L., *et al.,* 554
—— stomach, gastrectomy. Campbell, D. C., 722
—— transplantable, growth. Hoffman, J. G., Goltz, H. L., Reinhard, M. C., and Warner, S. G., *237, 341
—— transplanted, of glandular stomach, enzymatic activity. Greenstein, J. P., *et al.,* 339
—— vulva. McDonald, J. R., *et al.,* 792
Adenocystoma lymphomatosum, papillary, of neck. Tuta, J. A., *et al.,* 349
Adenofibromas and cystadenofibromas, ovary. Scott, R. B., 720
Adenoma, bronchial, analogy to late prenatal and early postnatal structures. Harris, W. H., Jr., 423
—— —— benign, Kramer, R., 885
—— —— —— lobectomy. Mayo, L. E., 721
—— —— cellular origin. Stout, A. P., 722
—— —— with liver metastases. Anderson, W. M., 639
—— liver, solitary. del Pino, P., *et al.,* 727
—— lung, malignant. Adams, W. E., *et al.,* 279, 639
—— pancreas, with hyperinsulinism. Stein, W., 807
—— parathyroid. Cochrane, R. C., 567
—— —— Curtis, C. S., *et al.,* 567
—— pituitary, simulated by craniopharyngeal neoplasm. Coon, W. L., 887
—— prostate. Trabucco, A., 885
—— thyroid, toxic, with hypothyroidism. Beverly, S. S., 807
Adenomatosis, colon, multiple. Pickworth, M. E., 424
—— duodenum. Wolfer, J. A., 726
—— pulmonary, multiple bilateral. Sims, J. L., 640
Adenomyosis, uterus. Brines, O. A., *et al.,* 421
—— —— causing atony and hemorrhage following cesarean section for sacculation pregnancy. Sackett, N. B., 792
Adrenal carcinoma, intracellular inclusion bodies, multiple primary tumors. Stein, R. J., 418
—— castrate mice, relation to cancer. Woolley, G. W., Fekete, E., and Little, C. C., **120
—— cortex carcinoma. Rettenmaier, A. J., *et al.,* 645
—— —— —— Tuta, J. A., 806
—— —— —— in child. Taylor, W. N., *et al.,* 348
—— —— tumor, diabetes mellitus. Sprague, R. G., *et al.,* 645
—— in adaptation to altitude, climate, and cancer. Sundstroem, E. S., *et al.,* 494
—— medulla, malignant pheochromocytoma, simulating carcinoma of adrenal cortex. McGavack, T. H., *et al.,* 645
—— neoplasms and gonadectomy. Woolley, G. W., *et al.,* 632
—— neuroblastoma with orbital metastases. Guibor, G. P., 789
—— pheochromocytoma. Hyman, A., *et al.,* 887
—— rests in kidney. Mitchell, N., *et al.,* 423
—— sympathicoblastoma. Hyams, J. A., *et al.,* 806
—— —— ocular findings. Bothman, L., *et al.,* 717
—— tumor. Keating, F. R., Jr., *et al.,* 348
—— —— in female infant, with hypertrichosis, hypertension, overdevelopment of external genitalia, obesity, but no breast enlargement. Neff, F. C., *et al.,* 645
—— uninvolved in retroperitoneal sympathicoblastoma. Drake, R. L., *et al.,* 279
Aegerter, E. E., *et al.,* 647
Agouti, spontaneous carcinoma. Carini, A., 711
Agranulocytosis, leukemia. Jackson, H., Jr., 567
Airey, F. S., 715
Ajamil, L. F., *et al.,* 787
Albaum, H. D., and Potter, V. R. Biocatalysts in cancer tissue. II. Inhibition of the succinoxidase system by tumor extracts, *303, 416
Albright, H. L., *et al.,* 640
Alexander, J., 721
Allen, A. W., *et al.,* 722
Allen, E., 632
—— **Gardner, W. U., and Collins, V. J.** Attempts at early diagnosis of cancer of the cervix experimentally induced in mice, **124
Allen, M. S. *See* Rettenmaier, A. J., 645
Allison, P. R., 722

Allsopp, C. B., 206
Altman, F. *See* Brighton, G. R., 798
de Alvarez, R. R., 562
Alveolus and reticulin-forming cells, cerebral meningioma. Tuthill, C. R., *et al.,* 717
Alyea, E. P., *et al.,* 211, 422
American Association for Cancer Research, Inc. 35th Annual Meeting, 1942; Proceedings, Business Sessions, 137
—— —— Scientific Sessions, 120
—— By-laws, 477
—— Members, 480
—— Special Meeting of Board of Directors, 1943, 475
American College of Radiology. 808
Amersbach, J. C., *et al.,* 277
Amino acid injection and ingestion, effect on Perry sarcoma. Beard, H. H., **122
o-Aminoazotoluene effect on ultraviolet irradiation. Rusch, H. P., and Kline, B. E., **128
—— inducing hepatic lesions, hepatomas, pulmonary tumors, and hemangioendotheliomas. Andervont, H. B., *et al.,* 486
—— small amounts, response of mice. Andervont, H. B., *et al.,* 626
p-Aminodimethylaniline and aniline, effect of oral administration on rat growth. White, J., *et al.,* 338
Ammonia and citrulline, incubation with normal and neoplastic hepatic tissues. Greenstein, J. P., 627
Amoeba proteus, initiation of mitosis by sulfur-containing compounds. Chalkley, H. W., 141
Ampulla of Vater and pancreas, carcinoma. Whipple, A. O., 728
—— —— —— —— pancreas, carcinoma, fatty infiltration of liver. Schnedorf, J. G., *et al.,* 728
—— —— —— —— periampullary portion of duodenum carcinoma. Hunt, V. C., 724
—— —— —— carcinoma. Blake, H. S., *et al.,* 640
—— —— —— —— excision of duodenum and head of pancreas, method of anastomosing pancreatic duct to jejunum. Phillips, J. R., 642
—— —— —— —— transduodenal resection. Baumgartner, C. J., 722
—— —— —— —— two-stage resection. Moreland, R. B., *et al.,* 642
Amyl acetate, sodium pentobarbital, paradichlorbenzene, and sovasol, effect on induced resistance to transplanted rat leukemia. Murphy, Jas. B., and Sturm, E., *173, 278
Amyot, R., 636
Anaphylaxis and hemorrhage in transplanted tumors. Barrett, M. K., **122, 277
Anderson, C. E., *et al.,* 280
Anderson, F. M. *See* Courville, C. B., 716
Anderson, G. *See* Lomax, J., 792
Anderson, W. A. D. *See* Werner, A. A., 565
Anderson, W. M., 639
Andervont, H. B., *et al.,* 70, 486, 559, 626 (2 abs), 708, 711
—— *See* Bryan, W. R., 341
—— *See* Edwards, J. E., 343 (2 abs)
—— *See* Greenstein, J. P., 70, **120, 339, 416
—— *See* Shimkin, M. B., 276
—— *See* White, J., **129, 710
Andrews, J. R., 633
Androgen and estrogen ratio, urinary, and benign prostatic hypertrophy. Miller, M. L., *et al.,* 884
—— inhibition, prostatic carcinoma. Low, H. T., *et al.,* 795
Anemia, pernicious, and cancer of stomach. Hagyard, C. E., 802
—— production by unsaturated fatty acids in diet. György, P., *et al.,* 555
Angioendothelioma, kidney. Prince, C. L., 346
—— spermatic cord. Prince, C. L., 213
Angioma, basal cell tumors resembling. Lamb, J. H., *et al.,* 420
—— cerebral cortex, Meadows, S. P., 637
—— kidney. Riley, A., *et al.,* 797
—— left fronto-parietal cortex. Hilliard, T. L., 637
Angiomyoma, ramifying, associated with leiomyosarcoma of uterus. Gnassi, A. M., *et al.,* 808
Angrist, A. *See* Gewanter, A. P., 568
—— *See* Mitchell, N., 423
—— *See* Siris, J. H., 345
Aniline and *p*-aminodimethylaniline, effect of oral administration on rat growth. White, J., *et al.,* 338
Antigen in chemically induced chicken tumor related to that of leukosis sarcoma agent. Gottschalk, R. G., *649, 785
—— relationship of myxoma and fibroma viruses. Shaffer, J. G., 555
Antiserums, specific precipitin, for protein of cancer tissue. Mann, L. S., and Welker, W. H., *193, *196, 278 (2 abs)
Anus, carcinoma, radiation therapy. Harris, W., 886
—— papilloma. Drueck, C. J., 788
Apfelbach, G. L. *See* Tuta, J. A., 349
Appel, M. *See* Saphir, O., *767, 797, 881
Appendices epiploicae, carcinoma, metastases. Gilchrist, R. K., *et al.,* 723
Appendix, carcinoid. Ginsberg, S. T., *et al.,* 723
—— carcinoma associated with appendicitis. Young, E. L., 643
—— —— resembling carcinoma of colon. Uihlein, A., *et al.,* 726
Apperly, F. L., *et al.,* 208
Aptekman, P. M., King, H. D., and Lewis, M. R. A sarcoma-producing factor extractable from transplanted rat fibrosarcomas, *856, 877
Arachnoid, fibrosarcoma, with metastases. Russell, W. O., *et al.,* 279
Arenas, N. A. R., 804
Arendt, J., 491
Arenson, N., *et al.,* 715
Argentaffin tumor, appendix. Ginsberg, S. T., *et al.,* 723
—— —— metastasizing, cecum, in multiple colonic cancer. Mayo, C. W., *et al.,* 725
—— —— multiple, in ileum, with metastasis in lymph nodes and liver. Gold, I. R., *et al.,* 641
—— —— small bowel, roentgen sign of cancer. Miller, E. R., 6357
Ariel, I., Bishop, F. W., and Warren, S. L. Studies on the effect of hypothermia. I. Acute physical and physiological changes induced by the prolonged hypothermic state in the rabbit, *448, 556
—— **and Warren, S. L.** Studies on the effect of hypothermia. II. The active role of the thyroid gland in hypothermic states in the rabbit, *454, 557
—— **and** —— Studies on the effect of hypothermia. III. The effect of a single short period of hypothermia on the Brown-Pearce rabbit epithelioma, *464, 557
—— *See* Steadman, L. T., *471, 557
Arndale, O. *See* Schindler, R., 214
Arneson, A. N., 790
—— *See* Nolan, J. F., 344
Arnold, H., and Zimmerman, H. M. Experimental brain tumors. III. Tumors produced with dibenzanthracene, *682, 784
Arrhenoblastoma. *See* Ovary
Arteriosclerosis masking brain tumor. Arenson, N., *et al.,* 715
Asbury, M. K., *et al.,* 807
Ash, J. E., *et al.,* 788
—— *See* Callender, G. R., 789
Ashburn, L. L. *See* Gentile, R. J., 646
Ascorbic acid and iron, epidermal, influence of limited methylcholanthrene application. Carruthers, C., *et al.,* 555
Aspiration biopsy, new type of needle. Franseen, C. C., 568
Astragalus, osteoid osteoma. Horwitz, T., 643
Astrocytoma, cerebrum. Hecht, E. B., 716
Atkinson, R. C , 346
Atlas, J. *See* Koucky, J. D., 724
Atsatt, R. F., 347
Aub, J. C., and Wislocki, G. A comparison of the growth of deer antler and of osteogenic sarcoma, **120
Auerbach, S. F. *See* Robillard, G. L., 562
Avidin and biotin balance in *p*-dimethylaminoazobenzene tumor formation. Burk, D., Spangler, J. M., du Vigneaud, V., Kensler, C., Sugiura, K., and Rhoads, C. P., **130

Avidin concentrates administered to cancer patients. Rhoads, C. P., *et al.*, 787
—— feeding, effect on tumor growth, Kensler, C. J., Wadsworth, C., Suguira, K., Rhoads, C. P., Dittmer, K., and du Vigneaud, V., *823, 880
Avitaminosis B, precancerous mouth lesions. Martin, H., *et al.*, 344
Axilla, metastases, extent in breast carcinoma. Warren, S., *et al.*, 562
Azo compounds, carcinogenicity. Andervont, H. B., *et al.*, 626
Azo dye, carcinogenic, effect on melanin formation. Baker, A. K., *et al.*, 627
—— —— producing subcutaneous sarcoma, influence of liver feeding. Turner, J. C., *et al.*, 207

Bacteria, exposure to high temperatures, effect of carcinogens. Spencer, R. R., *et al.*, 415
—— gram-negative, endotoxin antigens, relationship to tumor-hemorrhagic agent. Zahl, P. A., *et al.*, 629
—— polysaccharide causing hemorrhage in mouse sarcoma. Hartwell, J. L., Shear, M. J., and Adams, J. R., Jr., **122
—— toxin action on tumors, distribution of tumor-hemorrhage agents among bacteria. Hutner, S. H., *et al.*, 880
—— —— *Salmonella typhimurium,* effect on tumors. Zahl, P. A., *et al.*, 710
Badger, G. M., *et al.*, 413
Badgley, C. E., *et al.*, 144
Bailey, W., *et al.*, 424
Bain, J. A., and Rusch, H. P. Carcinogenesis with ultraviolet radiation of wave length 2,800–3,400 Å, *425, 558
—— —— **and Kline, B. E.** The effect of temperature upon ultraviolet carcinogenesis with wave lengths 2,800–3,400 Å, *610, 708
Bainbridge, W. S., 884
Baker, A. B., 345
——. *See* Peyton, W. T., 493
Baker, A. K., *et al.*, 627
Baker, G. S., *et al.*, 715
Baker, J. O., *et al.*, 718
Ball, R. P. *See* Keston, A. S., 344
Ball, Z. B., Huseby, R. A., and Visscher, M. The influence of caloric restriction on ovarian function in relation to mouse mammary cancer incidence, **131
—— *See* Visscher, M. B., 627
Ballivert, M. *See* Santy, P., 725
Barden, R. P., *et al.*, 647
Barens, S. N., 715
Bargen, J. A., 801
—— *See* Cromar, C. D. L., 722
Barley, pearled, treatment of spontaneous mammary cancers in mice. Lewisohn, R., *et al.*, 880
Barlow, A., 788
Barnard Hospital, St. Louis, cancer incidence in chronic ulcerative mouth lesions. Keyes, E. L., 143
Barnes, A. C., 807
Barnes, J., 718
Barnes, R. H. *See* Visscher, M. B., 627
Barnes, R. W. *See* Evans, N., 212
Barr, R. E., 633
Barrett, C. W., *et al.*, 790
Barrett, M. K. Anaphylaxis and hemorrhage into tumors, **122, 277
Barringer, B. S., 422, 491
Bartholin's gland, carcinoma. Boughton, T. G., 563
—— —— connective tissue tumor (myxosarcoma). Smiley, I., *et al.*, 792
Barzilai, G., 494
Basal cell carcinoma, nose, and hypernephroma, double malignancy. Mathé, C. P., *et al.*, 418
—— —— —— pseudoadenomatous, of tongue. Lampe, I., 639
—— —— —— superficial. Airey, F. S., 715
—— —— —— vulva. Berman, W., 791
Basal cell epithelioma. Butterworth, T., 788
—— —— —— histogenesis. Holtzmann, I. N., 143
—— —— —— multiple, from congenital pigmented basal cell nevi. Nisbet, T. W., 562
—— —— tumors, angiomatous. Lamb, J. H., 420
Bass, M. H., 888
Batts, M., Jr. *See* Badgley, C. E., 144
Baumann, C. A. *See* Kline, B. E., *825, 880
—— *See* Lavik, P. S., *749, 879
—— *See* Miller, J. A., *217, *223, 337 (2 abs), *849, 877 (2 abs)
—— *See* Miner, D. L., *296, 416
Baumberger, J. P., *et al.*, 210
Baumgartner, C. J., 722
Bay, M. W. *See* Kahn, M., 214
Beacham, W. *See* Collins, C. G., 211
Beard, D. *See* Bernheim, F., 210
—— *See* Sharp, D. G., 556
Beard, H. H. The effect of injection and ingestion of amino acids upon the appearance, growth, and regression of the Perry sarcoma in rats, **122
Beard, J. W. *See* Bernheim, F., 210
—— *See* Sharp, D. G., 556
Beard, M. F., 805
Beaudet, E. A., 721
Beaver, D. C. *See* Marwil, T. B., 563
Beck, W. C. *See* Koucky, J. D., 642, 724
Becker, C. *See* Culver, G. J., 645
Becker, S. W., *et al.*, 349
Behan, R. J., 888
Behrents, E. G., 279
Behrman, H. T. *See* Levin, O. L., 279
Beilin, L. M., *et al.*, 565
Belk, W. P. *See* Barden, R. P., 647
Belkin, M., and Stern, K. G. Metabolism of Yale carcinoma I, *164, 277
Bell, E. T., 637
Bell, J. C. *See* Frank, L. W., 802
Belt, E., 212
Benedict, W. L., *et al.*, 787
Benjamin, E. L. *See* Christopher, F., 641
Benjamin, E. W., 713
Benjamin, J. W. *See* McGavack, T. H., 645
Bennett, G. E., *et al.*, 643
Bennett, H. G., Jr., *et al.*, 790
Benson, C. D., *et al.*, 726
Benson, R. R. *See* Pohle, E. A., 72
1,2-Benzanthracene metabolism, absorption spectra. Berenblum, I., and Schoental, R., *686, 784
—— 5,9,10-trimethyl-, action in skin. Hartwell, J. L., *et al.*, 554
Benzpyrene, irradiated, inhibition of urease activity. Mueller, G. C., and Rusch, H. P., *113, 210
—— transformation in living mouse skin into compound soluble in dilute alkali. Mottram, J. C., *et al.*, 338
—— tumor production. Gottschalk, R. G., 487
1,2-Benzpyrene, fluorescence spectrum. Roffo, A. E., Jr., 785
3,4-Benzpyrene, absorption spectra. Weigert, F., 207
—— and human smegma applied to vagina and cervix, carcinogenicity. Fishman, M., 206
—— fluorescence *in vivo,* distribution, especially on skin. Doniach, I., *et al.*, 626
—— —— —— —— interrelationship of derivatives formed in various sites. Doniach, I., *et al.*, 626
—— marginal doses, production of subcutaneous tumors. Leiter, J., *et al.*, 706
—— metabolism in mice and rats, identification of isolated products as 8-hydroxy-3,4-benzpyrene and 3,4-benzpyrene-5,8-quinone. Berenblum, I., *et al.*, *151, 275
—— —— —— mice and rats, isolation of hydroxy and quinone derivative. Berenblum, I., *et al.*, *145, 275
—— producing water-soluble carcinogen. Allsopp, C. B., 206
Berard, M. *See* Santy, P., 725

Berenblum, I., Crowfoot, D., Holiday, E. R., and Schoental, R. The metabolism of 3,4-benzpyrene in mice and rats. II. The identification of the isolated products as 8-hydroxy-3,4-benzpyrene and 3,4-benzpyrene-5,8-quinone, *151, 275
—— **and Schoental, R.** The metabolism of 1,2-benzanthracene in mice and rats. With an appendix on absorption spectra by Holiday, E. R., *686, 784
—— —— The metabolism of 3,4-benzpyrene in mice and rats. I. The isolation of a hydroxy and a quinone derivative, and a consideration of their biological significance, *145, 275
Berger, R. A. *See* Hodges, F. M., 71
Berkheimer, G. A. *See* Bennett, G. E., 643
Berkove, A. B., 798
Berlin, C., 788
Berman, W., 791
Bernheim, F., *et al.,* 210
Bernheim, M. L. C. *See* Bernheim, F., 210
Berns, R. S., 726
Bernstein, L. *See* Howes, W. E., 419
Berry, F. B., 721
Berry, G. P. *See* Syverton, J. T., **124
—— *See* Warren, S. L., **128
Bersack, S. R., 805
Berwald, W. P. E. *See* Williams, H. W., 717
Bethell, F. H., 644
Bettman, R. B. *See* Laufman, H., 642
Betts, R. H., 493
Beverly, S. S., 807
Bianchi, A., *et al.,* 804
—— *See* Muscolo, D., 721
Bickel, W. H., *et al.,* 561
Biden, W. M., 884
Biesele, J. J. Diplochromosomes in a goldfish tumor, *411, 490
—— **and Poyner, H.** Polytene chromosomes in two mammary carcinomas of the human subject, *779, 882
Bile and gall bladders, human, carcinogenic extract. Steiner, P. E., 488
—— cell fibroadenoma, liver. Lee, E. S., 565
—— duct carcinoma. White, R. J., 643
—— —— intrapancreatic portion, carcinoma. Brunschwig, A., *et al.,* 641
—— —— neoplasms, ether-extractable bilirubin. Franchi, P. H., *et al.,* 886
—— —— proliferating epithelium and hepatic tumors induced with *p*-dimethylaminoazobenzene. Dalton, A. J., *et al.,* 630
—— tract carcinomas. Willis, R. A., 804
—— —— malignant lesions. Robertson, H. E., *et al.,* 727
Biliary tract, malignant lesions. Robertson, H. E., *et al.,* 727
Bilirubin, ether-extractable, in bile duct neoplasms. Franchi, P. H., *et al.,* 886
Biller, S. B. *See* Spark, C., 567
Binnie, G. G., 643
Biocatalysts in cancer, enzyme-virus theory of carcinogenesis. Potter, V. R., *358, 490
—— —— —— inhibition of succinoxidase system by tumor extracts. Albaum, H. D., and Potter, V. R., *303, 416
—— —— —— succinic dehydrogenase and cytochrome oxidase. Schneider, W. C., and Potter, V. R., *353, 489
Biochemistry and morphogenesis. Needham, J., 494
—— therapeusis, carcinoma of prostate. Herbst, W. P., 212
Biotin and avidin balance in *p*-dimethylaminoazobenzene tumor formation. Burk, D., Spangler, J. M., du Vigneaud, V., Kensler, C., Sugiura, K., and Rhoads, C. P., **130
Birnkraut, M. *See* Howes, W. E., 568
Bischoff, F., *et al.,* 489, 628
Bisgard, J. D., *et al.,* 722
Bishop, F. W. *See* Ariel, I., *448, 556
Bittner, J. J. Mammary cancer in fostered and unfostered C3H breeding females and their hybrids, *441, 559
—— 340
Black, C. E., 493
Black, H. A., 636
Bladder, carcinoma. Livermore, G. R., 423
—— —— Wear, J. B., *et al.,* 798
—— —— and endoscopic use of radium. Ajamil, L. F., *et al.,* 787
—— —— colloid, and benign and malignant lesions of urachus. Dreyfus, M. L., 797
—— —— diverticulum. Abeshouse, B. S., *et al.,* 797
—— —— large bone metastases. Herger, C. C., *et al.,* 346
—— —— radon implants. Barringer, B. S., 491
—— —— roentgenotherapy. Buschke, F., *et al.,* 418
—— —— —— Costlow, W. E., 633
—— goblet cell adenocarcinoma. Sumner, W. A., *et al.,* 798
—— malakoplakia, and sarcoidosis. Redewill, F. H., 797
—— neoplasm in benign prostatic hypertrophy. Hyman, A., *et al.,* 885
—— papillomatosis. Kirwin, T. J., 422
—— sarcoma. Wheelock, M. C., 565
—— tumors. Hiemstra, W., *et al.,* 638
—— —— epithelial, in dogs, induced by β-naphthylamine. Bonser, G. M., 486
—— —— skin metastases. Atkinson, R. C., 346
Blady, J. V. *See* Martin, H., 800
Blain, J. H. *See* Brines, O. A., 421
Blair, V. P., *et al.,* 639
Blais, A. *See* Baker, J. O., 718
Blake, H. S., *et al.,* 640
Blake, J. M., *et al.,* 639 (2 abs)
Blankstein, S. S. *See* Bothman, L., 717
Bloch, R. G. *See* Adams, W. E., 279, 639
Blood and hemopoietic tissues, including spleen, thymus, and lymph nodes, radiation effects. Warren, S., *et al.,* 345
—— —— kidney catalase activity of tumor-bearing animals. Greenstein, J. P., *et al.,* 339
—— grouping technic. Schiff, F., *et al.,* 350
—— peripheral, morphology in normal rats. Reich, C., and Dunning, W. F., *248, 342
—— —— —— —— rats injected subcutaneously with carcinogenic hydrocarbons. Dunning, W. F., and Reich, C., *258, 342
—— —— —— —— rats with induced and transplanted tumors. Dunning, W. F., and Reich, C., *266, 342
—— protein formation, *p*-dimethylaminoazobenzene effect. Kline, B. E., *117, 209
—— proteose changes induced by transplantable and primary tumors. Winzler, R. J., and Burk, D., **135
Bloom, N., *et al.,* 722
—— *See* Williams, C., 720
Blum, H. F., *et al.,* 339, 557, 558 (2 abs), 708 (3 abs)
—— **Grady, H. G., and Kirby-Smith, J.** Kinetics of tumor induction in mice by ultraviolet radiation, **128
—— *See* Grady, H. G., **128, 558
—— *See* Kirby-Smith, J. S., **128, 208
—— *See* Lippincott, S. W., 709
Blum, V. G. *See* Essenberg, J. M., 647
Blumenfeld, C. M., 630
Blumenthal, H. T. *See* Loeb, L., 70
Bolker, H. *See* Holtzmann, I. N., 143
Bondurant, A. J., 721
Bone, benign chondroblastoma previously considered giant cell tumor. Jaffe, H. L., *et al.,* 643
—— breast, osteogenic sarcoma, surgery and radiation. Cauble, W. G., 144
—— fibroma, nonosteogenic. Jaffe, H. L., *et al.,* 280
—— Hodgkin's disease and lymphosarcoma. Vieta, J. O., *et al.,* 806
—— liposarcoma. Brown, W. O., 280
—— liver, and lungs, carcinoma. Satterlee, R. C., 648
—— marrow metabolism, relation to tumor metabolism. Warren, C. O., *621, 710
—— metastases, carcinoma of bladder. Herger, C. C., *et al.,* 346
—— —— —— —— male breast, orchiectomy. Farrow, J. H., *et al.,* 562
—— —— —— —— lung. Muscolo, D., *et al.,* 721

Bone, metastases, carcinoma of ureter, complicated by congenital giant hydronephrosis. Sauer, H. R., 346
—— —— silent, in cancer. Stein, R. J., 644
—— muscles, metastatic carcinoma. Mulsow, F. W., 646
—— neoplasms, children. Geschickter, C. F., 727
—— —— metabolic studies with aid of radioactive strontium. Treadwell, A. deG., *et al.,* 344
—— neurilemmoma. Conley, A. H., *et al.,* 347
—— plasma cell myeloma. Kirsch, I. E., 727
—— reticulum cell sarcoma. Szutu, C., *et al.,* 804
—— roentgenographic appearance in Cushing's syndrome. Sussman, M. L., *et al.,* 636
—— temporal, neuroepithelioma, extension into middle and posterior cranial fossae. Tuta, J. A., 727
—— tumors. Copeland, M. M., 643
—— —— malignant. Meyerding, H. W., 727
—— —— radical local resection, rehabilitation. Tuell, J. I., 804
—— —— relation of phosphatase activity to deposition of radioactive phosphorus. Woodard, H. Q., 142
—— —— roentgenologic diagnosis. Sutherland, C. G., 72
Bonn, H. K., *et al.,* 493
Bonne, C., 349
Bonser, G. M., 486
Boon, M. C. *See* Burk, D., *121, 560
—— *See* Furth, J., 881
—— *See* McEndy, D. P., 560
Boshes, B. *See* Weinberger, L. M., 788
Bosse, M. D., 726
—— *See* Freedman, L. M. J., 639
Bothe, A. E., 422
Bothman, L., *et al.,* 717
Botryoid tumors, immature, cervix. Simpson, E. E., 564
Botsford, T. W., 420
Bottomley, J. *See* Rivett, L. C., 720
Boughton, T. G., 563
Bourne, G., 350
Bourneville's disease. Loewenstein, A., *et al.,* 717
Bowen's disease. McGavic, J. S., 789
—— —— and superficial mucosal epithelioma of upper respiratory and alimentary tracts. Brighton, G. R., *et al.,* 798
—— —— cornea. Wise, G., 789
Bowers, R. F., 640
Bowing, H. H., *et al.,* 640, 718
Bowles, H. E., 718
Boyer, R. C. *See* Templeton, F. E., 72
Bradford, J. K. *See* Blake, J. M., 639
Bradley, E. T., 798
Brain and spinal cord tumors in children, radiation. Mandeville, F. B., 788
—— cauda equina, tumors. Cohen, I., *et al.,* 636
—— cerebellum, left hemisphere, osteochondroblastic meningioma. Freiman, I. S., *et al.,* 716
—— —— solitary metastasis from kidney hypernephroma. Edelman, L., 885
—— cerebral cortex, angioma. Meadows, S. P., 637
—— —— —— calcification associated with meningotheliomatous meningioma. Lichtenstein, B. W., *et al.,* 637
—— cerebrum, astrocytoma. Hecht, E. B., 716
—— —— meningioma, with alveolar and reticulin-forming cells. Tuthill, C. R., *et al.,* 717
—— —— sinuses, and veins, otitic thrombosis simulating multiple brain tumors. Keschner, M., *et al.,* 493
—— epidermoids occurring simultaneously below and above tentorium. Black, H. A., 636
—— fourth ventricle, cystic tumor. Zucker, J. M., *et al.,* 884
—— ganglioglioma. Courville, C. B., *et al.,* 716
—— glioma, intramedullary, secondary meningeal gliomatosis. Amyot, R., 636
—— —— treatment. Jenkinson, E. L., *et al.,* 345
—— intracranial and facial hemangioma. Shapiro, L. B., 887
—— left fronto-parietal cortex, angiomatous formations. Hilliard, T. L., 637
—— lesions simulating effects of parasigittal syndrome. Courville, C. B., 716
Brain metastasis, renal adenocarcinoma. Musa, A. B., *et al.,* 797
—— third ventricle, paraphysial cyst. Weinberger, L. M., *et al.,* 788
—— tumor. Botsford, T. W., 420
—— —— Slocum, Y. K., 717
—— —— and polyuria. Maurer, L. E., *et al.,* 637
—— —— arising anterior to medulla. Ecker, A., 493
—— —— calcified. Meadows, S. P., 637
—— —— children, dangers of radiation without biopsy. Ingraham, F. D., *et al.,* 491
—— —— dermoid and epidermoid. Martin, J., *et al.,* 637
—— —— diagnosis. Pessin, J., 717
—— —— encephalography. Gardner, W. J., *et al.,* 418
—— —— frontal parts. Kirschbaum, W. R., 788
—— —— hemorrhage into. Globus, J. H., *et al.,* 420
—— —— in dog, resembling human medulloblastoma. Neuburger, K. T., and Davis, C. L., *243, 343
—— —— intraventricular. Heburn, H. H., 716
—— —— malignant. Love, J. B., 716
—— —— masked by cerebral arteriosclerosis. Arenson, N., *et al.,* 715
—— —— metastatic. Globus, J. H., *et al.,* 493
—— —— multiple, resemblance of otitic thrombosis of cerebral sinuses and veins. Keschner, M., *et al.,* 493
—— —— neuroectodermal, transition from benign to malignant forms, Golbus, J. H., 884
—— —— produced with dibenzanthracene. Arnold, H., and Zimmerman, H. M., *682, 784
—— —— producing deafness. Sloane, P., *et al.,* 637
—— —— psychiatric diagnosis. McIntyre, H. D., *et al.,* 716
—— —— removable, electroencephalographic diagnosis. Woltman, H. W., *et al.,* 636
Bramhall, T. C. *See* Porter, J. E., 808
Bransfield, J. W., *et al.,* 345
Brantigan, O. C., *et al.,* 722
Braund, R. R. *See* Pack, G. T., 566
Brazil, optic nerve tumors, relation to von Recklinghausen's disease. Gomes, J. P., 717
Breed, J. E. *See* Simpson, F. E., 344
Brenner tumor. *See* Ovary
Brentan, E. *See* Prewitt, L. H., 721
Breslich, P. J. *See* Cameron, A. L., 641
Brewer, J. I. *See* Jones, H. O., 791
Brezezinski, A. *See* Zondek, B., *198, 278
Briele, H. A., 793
Briggs, C. D., 887
Briggs, J. B., and Briggs, R. W. The effects of a water-soluble carcinogen on early frog development. *1, 140
Briggs, R. W., and Grant, R. Growth and regression of frog kidney carcinoma tranplanted into the tails of permanent and normal tadpoles, *613, 710
—— *See* Briggs, J. B., *1, 140
Brighton, G. R., *et al.,* 798
Brindley, G. V., 718
Brindley, P. *See* Griffin, L. L., 644
Brines, O. A., *et al.,* 421
Broders, A. C. *See* Bickel, W. H., 561
Brody, S., 791
Brokaw, R. V., 808
Bronchus adenoma, analogy to late prenatal and early postnatal structures. Harris, W. H., Jr., 423
—— —— benign. Kramer, R., 885
—— —— —— lobectomy. Mayo, L. E., 721
—— —— cellular origin. Stout, A. P., 722
—— —— liver metastases. Anderson, W. M., 639
—— carcinoma. Holmes, G. W., 640
—— —— Simons, E. J., 721
—— —— Wallace, W. S., *et al.,* 640
—— —— and developmental lung abnormalities. Womack, N. A., *et al.,* 279
—— —— associated with foreign body. Blake, J. M., 639
—— —— commercial lead as possible inciter. Black, C. E., 493
—— —— evidenced by intracranial metastasis. Mitchell, H. C., *et al.,* 721

Bronchus carcinoma in Negroes. Quinland, W. S., 346
—— —— ischemic necrosis of lung and obturator thrombus of right pulmonary artery. Behrents, E. G., 279
—— —— physical examination in diagnosis. Vinson, P. P., 722
—— —— resemblance of metastatic lung tumors. Freedlander, S. O., *et al.*, 423
—— involvement in metastatic pulmonary cancer. King, D. S., *et al.*, 640
—— left main, lipoma. Vinson, P. P., *et al.*, 722
—— metastasis, of hypernephroma, simulating primary bronchial carcinoma. Nofsinger, C. D., *et al.*, 348
Brooklyn Cancer Institute, lower lip carcinoma. Howes, W. E., 143
—— —— —— melanoma. Howes, W. E., *et al.*, 568
Brown, A. F. *See* Evans, N., 212
—— *See* Kimball, T. S., 563
Brown, E. H., 805
Brown, J. B. *See* György, P., 555
Brown, M. H., 492
Brown, W. E., *et al.*, 345
Brown, W. H. *See* Greene, H. S. N., *53, 142
Brown, W. O., 280
Brown-Pearce tumor, attempts to abrogate immunity. Saphir, O., and Appel, M., *767, 881
—— —— effect of single short period of hypothermia. Ariel, I., and Warren, S. L., *464, 557
—— —— resistance, blood eosinophil factor. Casey, A. E., **121
Brues, A. M., Tracy, M. M., and Cohn, W. E. Relation of nucleic acid metabolism to growth, **136
—— *See* Cohn, W. E., **135
Brunet, W. M., 647
Brunn, H. *See* Pearl, F. L., 642
Brunschwig, A. Vitamin C and tumor growth, *550, 627
—— *et al.*, 639 641
Bryan, W. R., *et al.*, 341, 706
—— *See* Andervont, H. B., 559
Buchstein, H. F., 715
Buchtel, H., 344
Budd, J. W., 421
Buenos Aires, Institute of Experimental Medicine, cancer of the larynx. Roffo, A. H., *et al.*, 800
—— —— Institute of Experimental Medicine, new technic for determining fluorescence. Roffo, A. E., Jr., 709
—— —— Institute of Experimental Medicine, source of ultraviolet radiation. Roffo, A. E., Jr., 714
Bumgardner, J. S., 798
Burdette, W. J. The inheritance of susceptibility to tumors induced in mice. II. Tumors induced by methylcholanthrene in the progeny of C3H and JK mice, *318, 415
—— **and Strong, L. C.** The inheritance of susceptibility to tumors induced in mice. I. Tumors induced by methylcholanthrene in five inbred strains of mice, *13, 141
Burger, R. E., *et al.*, 144
—— *See* Morton, C. B., 642
Burk, D., *et al.*, 560
—— **Spangler, J. M., du Vigneaud, V., Kensler, C., Sugiura, K., and Rhoads, C. P.** Biotin-avidin balance in *p*-dimethylaminoazobenzene tumor formation, **130
—— **Sprince, H., Boon, M. F., and Furth, J.** Metabolism of mouse tissues in the preleukemic state, **121
—— *See* Winzler, R. J., **135
Burke, E. M., and Thibaudeau, A. A. The malignant melanoma, **133
Burke, J. F., 801
Burns, E. L., and Schenken, J. R. Spontaneous primary hepatomas in mice of strain C3H. II. The influence of breeding on their incidence, *691, 785
—— **and** —— Spontaneous primary hepatomas in mice of strain C3H. IV. A study of intracytoplasmic inclusion bodies and mitochondria, *697, 785
—— *See* Schenken, J. R., 213, *693, 785
Busch, I. *See* Held, I. W., 641
Buschke, F., *et al.*, 418
—— *See* Cantril, S. T., 719
Butler, P. F., 801
Butterworth, T., 788
Buttock fibrosarcoma, associated with pregnancy. Kirtz, L. P., *et al.*, 808
Byers, L. T. *See* Blair, V. P., 639

Cahill, W. M., Dunning, W. F., and Smith, A. H. Free choice dietary study of tumor-bearing rats, *830, 879
Cain, J. C. *See* Gardner, H. L., 807
Calcium and sodium, epidermal, effect of methylcholanthrene. Suntzeff, V., *et al.*, 555
Calhoun, F. P., Jr., *et al.*, 717
Calkins, L. A., *et al.*, 638
Callender, G. R., *et al.*, 789
Callister, A. C., 349
Calvery, H. O. *See* Nelson, A. A., *230, 338
Cameron, A. L., *et al.*, 641
Cameron, G., Kopac, M. J., and Chambers, R. Neoplasm studies. IX. The effects in tissue culture of N,N-dimethyl-*p*-phenylenediamine on rat liver tumors induced by *p*-dimethylaminoazobenzene, *281, 413
—— *See* Chambers, R., *293, 414
—— *See* Grand, C. G., **133
—— *See* Kopac, M. J., *290, 413
Campbell, D. A., 143
Campbell, D. C., 722
Campbell, E., *et al.*, 567
Campbell, H. E., 212
Campbell, J. A., 417, 486, 784
Campbell, J. B. *See* Ingraham, F. D., 491
Cancer. Nathanson, I. T., 633
—— clinic and hospital, role of pathologist. Hirsch, E. F., 647
—— control, economics. Skinner, E. H., 215
—— —— in Illinois. Brokaw, R. V., 808
—— —— in Wisconsin. Keettel, W. C., 808
—— —— medical profession's responsibility. Ohlmacher, J. C., 215
—— cure, role of general practitioner. Wetherell, F. S., 215
—— diagnosis and treatment. Behan, R. J., 888
—— incidence according to site, age, color, and sex. Little, C. C., **126
—— latent, primary. Gewanter, A. P., *et al.*, 568
—— model bill. American College of Radiology, 808
—— mortality, reduction. Hix, J. B., 808
—— operative and postoperative care. Robillard, G. L., *et al.*, 787
—— origin. Magnelia, A. L., *et al.*, 878
—— organization for treatment. National Radium Commission, London, 215
—— problem. Oberling, C., 350
—— —— present concept. Maxfield, J. R., 215
—— research, new phases. Pitts, H. C., 728
—— —— present status. Voegtlin, C., 632
—— —— significance. Emge, L. A., 711
—— —— trends. Andervont, H. B., 711
—— —— —— Murphy, Jas. B., 342
—— role of pathologist. Simonds, J. P., 728
—— study, advances. Horsley, J. S., 568
—— treatment, delay. Harms, C. R., *et al.*, 568
Cantril, S. T., *et al.*, 719
—— *See* Buschke, F.
Carbon tetrachloride hepatoma. Edwards, J. E., *et al.*, 487
—— —— inducing liver cirrhosis and hepatomas. Edwards, J. E., *et al.*, 414
Carcinogenesis after multiple irritation. Lauridsen, J., and Eggers, H. E., *43, 140
—— aromatic hydrocarbon derivatives related to chrysene. Dunlap, C. E., *et al.*, 706
—— 3,4-benzpyrene and human smegma applied to vagina and cervix. Fishman, M., *et al.*, 206
—— chemical, from drugs, dyes, remedies, and cosmetics, with reference to bladder tumors. Davis, E., 638
—— enzyme-virus theory. Potter, V. R., *358, 490

Carcinogenesis epidermal, photometric histochemical determination of thymonucleic acid. Stowell, R. E., 488
—— human liver extracts. Steiner, P. E., 707
—— skin and sebaceous glands. Simpson, W. L., and Cramer, W., *515, 626
—— stages, diets varying in calories in study. Tannenbaum, A., **129
Carcinogenesis, methylcholanthrene. *See* Methylcholanthrene
Carcinogenesis, ultraviolet radiation. *See* Ultraviolet
Carcinogenic hydrocarbons. *See* Hydrocarbons
Carcinogenicity, azo compounds. Andervont, H. B., *et al.,* 626
—— *p*-dimethylaminoazobenzene, liver and yeast fractions protecting against. Sugiura, K., Kensler, C. J., and Rhoads, C. P., **130
—— possible, of overcooked meats, heated cholesterol, acrolein, and heated sesame oil. Steiner, P. E., Steele, R., and Koch, F. C., *100, 207
—— tar produced by cholesterol pyrolysis. Roffo, A. H., 706
Carcinogens affecting bacteria, esposure to high temperature. Spencer, R. R., *et al.,* 415
—— —— *Paramecium caudatum.* Tittler, I. A., *et al.*. 488
—— extract from human bile and gall bladders. Steiner, P. E., 488
—— fluorescence, factors altering. Miller, J. A., and Baumann, C. A., *223, 337
—— in livers of cancerous, noncancerous, cirrhotic, and Negro patients. Steiner, P. E., **125, *385, 488
—— mechanism of species adaptation. Spencer, R. R., and Melroy, M. B., **129
—— —— skin, localization of 20-methylcholanthrene after single application. Simpson, W. L., and Cramer, W., *362, 487
—— water-soluble, effect on early frog development. Briggs, J. B., and Briggs, R. W., *1, 140
—— —— from 3,4-benzpyrene. Allsopp, C. B., 206
Carcinoid tumor, cecum. Waugh, J. M., *et al.,* 726
—— —— gall bladders. Bosse, M. D., 726
—— —— malignant, gastrointestinal tract. Satory, J. J., 424
—— —— obstructive, ileum. Dangremond, G., 280
—— —— rectum, derived from Erspamer's pre-enterochrome cells. Stout, A. P., 642
—— —— stomach. Lemmer, K. E., 724
—— —— vermiform appendix. Ginsberg, S. T., *et al.,* 723
Carini, A., 711
Carlucci, G. A., *et al.,* 279
Carotid body and pancreas tumor. Goodof, I. I., *et al.,* 647
—— —— tumors. Harrington, S. W., *et al.,* 647
—— gland tumor. Twombly, G. H., *et al.,* 728
Carr, J. G., 278, 417
Carranza, F. *See* Roffo, A. H., 725
Carruthers, C., *et al.,* 555
—— **and Suntzeff, V.** Chemical studies on the mode of action of methylcholanthrene on mouse epidermis, *744, 877
—— *See* Suntzeff, V., *431, 555
Carson, W. J., 418
Cary, M. K. *See* Apperly, F. L., 208
—— *See* Williams G. Z., 709
Casey, A. E. Blood eosinophil factor in the resistance of the rabbit to the Brown-Pearce tumor, **121
Cashman, B. Z., 791
Cassel, C., *See* Stout, A. P., 887
Castigliano, S. G. *See* Bransfield, J. W., 345
Castleman, B. *See* King, D. S., 640
Catalase, blood and kidney, activity of tumor-bearing animals. Greenstein, J. P., *et al.,* 339
—— liver, activity, of tumor-bearing animals. Greenstein, J. P., 628
—— —— —— —— tumor bearing mice and rats. White, J., and Andervont, H. B., **120
—— —— —— —— tumor-bearing mice, effect of regression and removal of tumors. Greenstein, J. P., 70
—— —— —— titration. Greenstein, J. P., 141
Cathepsins, normal tissues and hepatoma 31, hydrolysis of glutathione. Maver, M. E., *et al.,* 628
Cattell, R. B., *et al.,* 641 (2 abs), 801, 887
Cattle, horn, squamous cell carcinoma. Frank, E. R., *et al.,* 786
Cauble, W. G., 144
Caul, C. J. *See* Davison, R. M., 279
Cave, H. C., 72
Cecum. *See* Intestine, large
Cell, physiology and cytology. Bourne, G., 350
—— tumor, malignant origin. Koller, P. C., 631
—— —— morphology. Mottram, J. C., 341
—— viability in resistance to malignant growth. Goldfeder, A., **127, 709
Chalkley, H. W., 141
Chamberlin, G. W., 713
Chambers, R., Cameron, G., and Kopac, M. J. Neoplasm studies. XI. The effects in tissue cultures of N,N,N′,N′-tetramethyl-*o*-phenylenediamine and other compounds on malignant lymph nodes. *293, 414
—— **and Grand, C. G.** Radiosensitivity of mouse sarcoma 180 in tissue culture, **127
—— *See* Cameron, G., *281, 413
—— *See* Grand, C. G., **127
—— *See* Kopac, M. J., *290, 413
Chance, H. C., 787
Charache, H., 641, 789, 887
Chase, P. P., 715
Chasnoff, J. *See* Held, I. W., 347
Cheever, F. S. *See* Creech, H. J., **133
Chemical and physiological properties of isolated epidermis. Baumber, J. P., *et al.,* 210
—— induction of chicken tumor containing antigen related to that of leukosis sarcoma agent. Gottschalk, R. G., *649, 785
Chemotherapy, transmitted mouse leukemia. Flory, C. M., Furth, J., Saxton, J. A., Jr., and Reiner, L., *729, 880
Chifflet, A., 803
Childhood cancer. Ritvo, M., *et al.,* 728
Chitre, R. G., and Khanolker, V. R. Studies in esterase (butyric) activity. II. Esterase content of livers of mice and its excretion in strains susceptible or insusceptible to mammary cancer, *88, 209
Chloroleukemia, neoplastic nature. Hartz, P. H., 567
Chloromas, leukemia, and lymphosarcoma. Griffin, L. L., *et al.,* 644
Cholangioma, liver, in hepatolithiasis. Sanes, S., *et al.,* 565
Cholesterol, Cd.-irradiated, fluorescence spectrum. Roffo, A. E., Jr., 785
—— heated, possible carcinogenicity. Steiner, P. E., Steele, R., and Koch, F. C., *100, 207
—— —— to 300° C., attempts to induce stomach tumors. Kirby, A. H. M., *519, 627
—— pyrolysis producing carcinogenic tar. Roffo, A. H., 706
Choline and pyridoxin in prevention of epithelial hyperplasia in forestomach. Sharpless, G. R., *et al.,* 417
—— or methionine plus cystine, effect on incidence of *p*-dimethylaminoazobenzene-induced hepatic tumors. White, J., *et al.,* 417
de Cholnoky, T., 883
Chomet, B. *See* Ramsey, T. L., 568
Chondroblastoma, benign, bone, previously considered giant cell tumor. Jaffe, H. L., *et al.,* 643
Chondroma, larynx. Holinger, P. H., *et al.,* 799
—— —— laryngofissure. Gatewood, E. T., 799
—— sphenoid sinus and sella, transseptal removal. Soper, G. R., *et al.,* 800
Chondrosarcoma, central, of femur. Kennedy, R. H., 727
—— iliac bone of guinea pigs, spontaneous, metastasis to mammary region. Olcott, C. T., and Papanicolaou, G. N., *321, 418
Chont, L. K. *See* Hazel, O. G., 804
Chordoma, Wilkerson, W. W., Jr., 728
—— sacrococcygeal. Olsman, L., *et al.,* 644
—— spheno-occipital, unusual radiosensitivity. Andrews, J. R., 633
Chorioallantois cultivation of human leukemic leukocytes. Pierce, M., 278

Chorionepithelioma. Acosta-Sison, H., *et al.*, 790
—— de Alvarez, R. R., 562
—— and hydatidiform mole. Holman, A., 719
—— —— —— —— McLaughlin, E. F., 792
—— —— —— —— Schulze, M., 564
—— associated with tubal pregnancy and pulmonary metastases, high gonadotropin and low pregnanediol values. Smith, J. T., *et al.*, 793
—— extragenital, in male with gynecomastia. Bonn, H. K., *et al.*, 493
—— male and female, observed roentgenically. Arendt, J., 491
Christopher, F., *et al.*, 280, 347, 641
—— *See* Nesselrod, J. P., 725
Christy, C. J. *See* Schreiner, B. F., 635
Chromosomes, polytene, in human mammary carcinoma. Biesele, J. J., and Poyner, H., *779, 882
Chrysene, related compounds derived from aromatic hydrocarbons, carcinogenic activity. Dunlap, C. E., *et al.*, 706
Churchill, E. D., 493
Churg, J., *et al.*, 280
Chute, R., *et al.*, 422, 638
Circumcision, relation to prostatic cancer. Ravich, A., 213
Cirrhosis. *See* Liver
Citrulline and ammonia incubation with normal and neoplastic hepatic tissues. Greenstein, J. P., 627
Clagett, O. T. *See* Harrington, S. W., 647
—— *See* Wiig, L. M., 727
—— *See* Wilcox, L. T., 726
Clark, D. E. *See* Brunschwig, A., 641
Clark, P. J. *See* Wheelock, M. C., 796
Clarke, G. J. *See* Bischoff, F., 489
Clerf, L. H., 798
Climate, effect upon genesis of subcutaneous methylcholanthrene tumors and growth of transplantable sarcoma. Wallace, E. W., *et al.*, 556
Clinico Pathological Conference. Barden, R. P., *et al.*, 647
Cloudman, A. M. Reactions of hybrid and parabiontic pseudohybrid mice to inoculations of tumor C198, *47, **125, 142
—— *See* Snell, G. D., *396, 490
Coblenz, A. *See* Saccone, A., 721
Cochran, R. M., 722
Cochrane, R. C., 567
Cohen, I., *et al.*, 636
Cohn, W. E., and Brues, A. M. Permeability and metabolism of embryonic and malignant cells in culture, **135
—— See Brues, A. M., **136
Cohn, L. C., 789
Colchicine influence during methylcholanthrene epidermal carcinogenesis. Paletta, F. X., *et al.*, 210
Colcock, B. P. *See* Lahey, F. H., 802
Coley, B. L., *et al.*, 71
Colillas, D. *See* del Pino, P., 727
Coller, F. A., *et al.*, 722, 801
Collins, C. G., *et al.*, 211
Collins, J. O., 722
Collins, V. J., Gardner, W. U., and Strong, L. C. Experimental gastric tumors in mice, *29, 140
—— *See* Allen, E., **124
—— *See* Strong, L. C., *21, 141
Collins, V P., 492
Colon. *See* Intestine, large
Colvin, S. H., Jr., 565
Coman, D. R. Human neoplasms in tissue culture. II. Observations upon cells derived from peritoneal and pleural effusions, *526, 630
Conley, A. H., *et al.*, 347
Connecticut, prostate carcinoma. Griswold, H., 794
Connecticut State Medical Society, symposium on large bowel cancer, 349
Cook, E. S. *See* Amersbach, J. C., 277
Cook, J. W. *See* Badger, G. M., 413
Coon, W. L., 887
Cooper, F. S. *See* Zahl, P. A., 629
Cooper, K. G., 280
Cooper, Z. K., *et al.*, 70
Copeland, M. M., 643
Copleman, B. *See* Sussman, M. L., 636
Copper content of tissues of tumor-bearing animals. Greenstein, J. P., *et al.*, 628
Coray, Q. B., 280
Cornell, P. M. *See* Sisk, I. R., 796
Corpus, carcinoma, treatment. DeCosta, E. J., 719
Cosbie, W. G., 787
Costlow, W. E., 633
Courville, C. B., *et al.*, 716 (3 abs)
—— *See* Abbott, K. H., 715
Cove, A. M. *See* Rednich, 72
Coventry, M. B., *et al.*, 647
Cowdry, E. V. *See* Baumberger, J. P., 210
—— *See* Paletta, F. X., 210
Craciun, E. C., *et al.*, 784
Craig, R. L., 716
Craig, W. McK., *et al.*, 492
—— *See* Turner, O. A., 637
—— *See* Woltman, H. W., 636
Cramer, W. On the geographic distribution of gastric cancer in the States of the Union, **126
—— **and Stowell, R. E.** Skin carcinogenesis by a single application of 20-methylcholanthrene, *36, 140
—— **and** —— The genesis of experimental skin cancer by methylcholanthrene, **123, 206 (2 abs)
—— **and** —— On the quantitative evaluation of experimental skin carcinogenesis by methylcholanthrene. The factors of dosage, time, spacing of applications and multiplicity of the carcinogenic response, *668, 784
—— *See* Simpson, W. L., *362, 487, *515, *604, 626, 706,
—— *See* Stowell, R. E., 338
Craniopharyngioma, hypophyseal duct. Perkins, C. W., 348
Cranium, expanding lesions. Lipscomb, W. R., 279
—— hemangioma, cavernous. Echols, D. H., *et al.*, 643
—— metastasis, evidence of bronchial carcinoma. Mitchell, H. C., *et al.*, 721
—— multiple meningioma. Echols, D. H., 493
—— osteochondromas at base. List, C. F., 644
—— removal of intraorbital tumors through. Love, J. G., 718
—— spheno-occipital chordoma of unusual radiosensitivity. Andrews, J. R., 633
—— tumors. Jelsma, F., 788
—— —— causing Simmond's disease. Moss, R. E., 493
Cranmer, R. R., 887
Craver, L. F. *See* Kenney, J. M., 71, 634
—— *See* Slaughter, D. P., 215
—— *See* Vieta, J. O., 806
Creatine and creatinine content, transplanted hepatomas and normal and regenerating liver. Greenstein, J. P., 555
Creech, H. J., Jones, R. N., and Cheever, F. S. Chemical and immunological properties of conjugates prepared from proteins and carcinogenic hydrocarbons, **133
—— *See* Jones, R. N., **134
Creevy, C. D., 212, 794
—— *See* Hiemstra, W., 638
Cresci, J. V. *See* Gordon, C. A., 791
Crigler, C. W. *See* Shimkin, M. B., 886
Crockett, R. H., 633
Cromar, C. D. L., *et al.*, 722
Crossen, H. S., 211
Crowfoot, D. *See* Berenblum, I., *151, 275
Culver, G. J., *et al.*, 645
Cummings, R. H. *See* Nesbit, R. M., 213
Curtis, C. S., *et al.*, 567
Cushing's disease. van Buchem, F. S. P., 348
—— —— roentgenographic appearance of bones. Sussman, M. L., *et al.*, 636
Cyclotron, medical implication. Hempelmann, L. H., Jr., 713
Cylindroma type adenocarcinoma, metastases. Dockerty, M. B., *et al.*, 647
Cystadenofibromas and adenofibromas, ovary. Scott, R. B., 720
Cystadenoma and carcinoma with clear cells, papillary, in kidney tumor. Foulds, G. S., 346
—— lymphomatosum. Henderson, R. C., 647

Cystadenoma lymphomatosum, papillary. Hines, R. E., 647
—— —— —— Lederer, M., *et al.*, 568
—— —— —— parotid gland. Robinson, D. W., *et al.*, 639
—— pseudomucinous. Calkins, L. A., *et al.*, 638
—— teratoid, or mesonephroma, ovary. Stromme, W. B., *et al.*, 564
Cystine and methionine or choline, effect on incidence of *p*-dimethylaminoazobenzene hepatic tumors. White, J., *et al.*, 417
—— degradation by normal liver but not by transplanted hepatomas. Greenstein, J. P., 709
—— diet, effect on hepatic tumor development after *p*-dimethylaminoazobenzene-feeding. White, J., and Edwards, J. E., **129, 340
—— —— restricted, production of leukemia and sclerotic lesions in mice with methylcholanthrene. White, J., *et al.*, 707
—— lack in diet, effect on growth. White, F. P., 141
—— low in diet, effect on production of spontaneous mammary tumors. White, J., and Andervont, H. B., **129, 710
Cytolysis, hypotonic, of sea urchin eggs, effect of x-radiation. Grand, C. G., and Chambers, R., **127

Dalton, A. J. The mitochondria and Golgi apparatus of induced and spontaneous hepatic tumors of the mouse, **129
—— *et al.*, 341, 630
—— *See* Edwards, J. E., 343 (2 abs), 414, 487, 561
—— *See* White, J., 338
Dancey, T. E. *See* Stern, K., 717
Danforth, W. C., 791
Dangremond, G., 280
Daniel, J. H. *See* Lorenz, E., **123
Daniel, R. A., Jr. *See* Duncan, G. W., 346
Daniels, J. T. *See* Horrax, G., 807
Dannreuther, W. T., 791
Darling, H. H. *See* Wood, D. A., *509, 633
Dascomb, H. E. *See* Warren, S. L., **128
David, V. C., *et al.*, 280, 722
—— *See* Gilchrist, R. K., 723
Davidson, B., 797
Davis, C. L. *See* Neubuerger, K. T., *243, 343
Davis, E., 638
Davis, H. H., 637
Davis, L. *See* Martin, J., 637
Davis, M. E., 563
Davison, C. *See* Keschner, M., 493
Davison, R. M., *et al.*, 279
Dawson, E. K., *et al.*, 345
Day, M. L., 794
Deafness, midbrain tumor. Sloane, P., *et al.*, 637
Dean, A. L., *et al.*, 422
Death certificates, cancer, reliability. Dorn, H. F., *et al.*, 647
—— —— errors. Pohlen, K., *et al.*, 647
DeCosta, E. J., 719
Deer antler and osteogenic sarcoma, comparison of growth. Aub, J. C., and Wislocki, G., **120
DeLong, P. *See* Fry, W. E., 717
Dennis, C., 806
DeOme, K. B., *et al.*, 558
Dehydrogenase, succinic, and cytochrome oxidase in cancer tissue. Schneider, W. C., and Potter, V. R., *353, 489
Dermatitis, roentgen and radium, surgery. Ghormley, R. K., 713
Dermatoses, precancerous. Ormsby, O. S., 636
Dermoid and epidermoid tumors, intracranial. Martin, J., *et al.*, 637
—— —— —— —— spinal cord. Craig, R. L., 716
—— cysts, ovary. Linn, H. J., *et al.*, 792
—— —— —— bilateral, complicating pregnancy, bilateral oophorectomy. Goodwin, R. H., 791
—— —— —— with squamous cell carcinoma. Brody, S., 791
—— cyst, testis. Dockerty, M. B., *et al.*, 212
—— —— uterine tube. Aaron, J. B., 790
Dermoid, epidermoid, and teratoma of central nervous system. Peyton, W. T., *et al.*, 493
—— tumors, bilateral ovarian, complicating pregnancy. Bowles, H. E., 718
—— —— mediastinum. Dorsey, R. M., *et al.*, 279
de Rouville, W. H. *See* Donahauser, J. L., 144
Desjardins, A. U., 633
Diabetes mellitus, adrenal cortex tumor. Sprague, R. G., *et al.*, 645
—— —— and chronic lymphatic leukemia, insulin resistance. Levi, J. E., *et al.*, 567
Diagnostic procedures, accessory. Whalen, E. J., 344
Diaphragm, abnormalities secondary to tumors, roentgenology. Turner, J. W., 492
—— tumors, roentgenology. Ackermann, A. J., 71
Dibenzanthracene administration affecting hepatic vitamin A in rat. Abels, J. C., *ea al.*, 486
—— producing brain tumors. Arnold, H., and Zimmerman, H. M., *682, 784
—— toxic action on tissues, and vitamin A. Goerner, A., and Goerner, M. M., *833, 880
1,2,5,6-Dibenzanthracene, intraperitoneal injection into young mice producing lung tumors. Lynch, C. J., 882
—— treatment, formation of hemolymph nodes. Lasnitzki, A., *et al.*, 337
Dick, V. S., 346
Dickens, F., and Weil-Malherbe, H. The metabolism of normal and tumor tissue. XX. A comparison of the metabolism of tumors of liver and skin with that of the tissue of origin, *73, 209
Diddle, A. W., 719
Diencephalon, glioma in manic patient. Stern, K., *et al.*, 717
Diet and epithelial hyperplasia in forestomach of rats and mice. Sharpless, G. R., *108, 210
—— calory-restricted, influence on mouse ovarian function and mammary cancer incidence. Ball, Z. B., Huseby, R. A., and Visscher, M. B., **131, 627
—— —— —— —— spontaneous mammary carcinoma incidence. Visscher, M. B., *et al.*, 627
—— cystine, in production of hepatic tumors by oral administration of *p*-dimethylaminoazobenzene. White, J., and Edwards, J. E., **129, 340
—— deficient, fasting and partial inanition, producing gastric lesions. Morris, H. P., *et al.*, 340
—— deficiency in cancer. Macdonald, H., 712
—— effect on incidence of leukemia produced by methylcholanthrene. White, J., and Mider, G. B., **129
—— low cystine, effect on growth. White, F. P., 141
—— —— —— effect on production of spontaneous mammary tumors. White, J., and Andervont, H. B., **129, 710
—— —— —— effect on mammary gland tumor production. White, J., *et al.*, 710
—— riboflavin, influence on growth rate and number of mammary carcinomas and concentration in liver, muscle, and tumor. Morris, H. P., 710
—— study of tumor-bearing rats. Cahill, J. M., Dunning, W. F., and Smith, A. H., *830, 879
—— unsaturated fatty acids, in destruction of *p*-dimethylaminoazobenzene and production of anemia. György, P., *et al.*, 555
—— varying in calories in study of stages of carcinogenesis. Tannenbaum, A., **129
Diethylstilbestrol absorption after subcutaneous implantation. Shimkin, M. B., *et al.*, 632
—— and diethylstilbestrol dipropionate treatment, prostatic carcinoma. Kahle, P. J., *et al.*, 213, 795
—— —— —— —— effect on prostatic carcinoma, cytologic changes following treatment. Schenken, J. R., *et al.*, 213
—— treatment of prostatic carcinoma. Heckel, N. J., *et al.*, 212
***p*-Dimethylaminoazobenzene** carcinogenicity, liver and yeast fractions protecting against. Sugiura, K., Kensler, C. J., and Rhoads, C. P., **130
—— destruction by unsaturated fatty acids in diet. György, P., *et al.*, 555

p-Dimethylaminoazobenzene effect on blood protein formation. Kline, B. E., *117, 209
—— feeding, effect of dietary cystine on hepatic tumor development after. White, J., and Edwards, J. E., **129, 340
—— inducing hepatic tumors and proliferating bile duct epithelium. Dalton, A. J., *et al.,* 630
—— liver cancer, glycerophosphatases. Woodard, H. Q., *159, 277
—— —— —— inhibition by pyridoxin and other B vitamins. Miner, D. L., Miller, J. A., Baumann, C. A., and Rusch, H. P., *296, 416
—— —— tumors, effect of methionine or choline plus cystine on incidence. White, J., *et al.,* 417
—— —— —— tissue culture, effects of *N,N*-dimethyl-*p*-phenylenediamine. Cameron, G., Kopac, M. J., and Chambers, R., *281, 413
—— split products, effects on liver tumors in tissue culture. Kopac, M. J., Cameron, G., and Chambers, R., *290, 413
—— —— —— inhibition of liver oxidatives. Kensler, C. J., and Rhoads, C. P., **134
—— tumor formation, biotin-avidin balance. Burk, D., Spangler, J. M., du Vigneaud, V., Kensler, C., Sugiura, K., and Rhoads, C. P., **130
Diplochromosomes in goldfish tumor. Biesele, J. J., *411, 490
Dische, Z. *See* Lewisohn, R., 879, 880
Dittmer, K. *See* Kensler, C. J., *823, 880
Dixon, C. F. *See* Bowing, H. H., 640
—— *See* Cromar, C. D. L., 722
—— *See* Gregg, R. O., 723 (2 abs)
—— *See* Phillips, R. B., 725
Dmochowski, L. On the reported production of tumors by normal liver cells of mice bearing tumors produced by methylcholanthrene, *608, 707
Dobriner, K., Gordon, E., and Rhoads, C. P. Studies of the excretion of steroid in urine of normal persons, cancer patients, and patients with adrenal hyperplasia, **132
Dockerty, M. B., *et al,* 212, 280, 345, 638, 647, 719
—— *See* Ghormley, R. K., 643
—— *See* Harrington, S. W., 647
—— *See* Leffel, J. M., Jr., 792
—— *See* Sprague, R. G., 645
Doljanski, L., *et al.,* 882
—— *See* Tenenbaum, E., *585, 786
Donhauser, J. L., *et al.,* 144
Doniach, I., *et al.,* 626 (2 abs)
Doran, W. T., *et al.,* 723
Doran, W. T., Jr. *See* Doran, W. T., 723
Dorfman, R. I., and Fish, W. R. The present status of the metabolism of the estrogens, **120
Dorn, H. F., *et al.,* 647
Dorsey, J. M., 279
Dorton, H. E. *See* New, G. B., 800
Doub, H. P., *et al.,* 639
Dowdy, A. H. *See* Stabins, S. J., 638
Dowling, U. J., 638
Drake, R. L., *et al.,* 279
Drexler, L. S. *See* Langworthy, H. T., 346
Dreyfuss, M. L., 797
Driver, J. R., *et al.,* 420
Drosophila melanogaster, benign and malignant lesions. Russell, E. S., **125
—— —— tumors, inheritance. Russell, E. S., 882
Drueck, C. J., 788
Druss, J. G., *et al.,* 789
Dublin, W. B., 797
DuBois, K. P. *See* Potter, V. R., **133
Dudgeon, H., Jr., 634
Dudley, G. S., *et al.,* 641
Duncan, G. W., *et al.,* 346
Dunlap, C. E., and Warren, S. The carcinogenic activity of some new derivatives of aromatic hydrocarbons. I. Compounds related to chrysene, *606, 706
—— *See* Warren, S., 345
Dunne, R. E., 143
Dunning, W. F., and Reich, C. Studies on the morphology of the peripheral blood of rats. II. Rats injected subcutaneously with carcinogenic hydrocarbons, *258, 342
—— **and** —— III. Rats with induced and transplanted tumors, *266, 342
—— *See* Cahill, W. M., *830, 879
—— *See* Reich, C., *248, 342
Duodenum. *See* Intestine, small
Durand, E. A. *See* Strong, L. C., *21, 141
Duran-Reynals, F. The infection of turkeys and guinea fowls by the Rous sarcoma virus and the accompanying variations of the virus, *569, 707
—— *See* Milford, J. J., *578, 707
Dusts, tar. *See* Tar.
du Vigneaud, V. *See* Burk, D., **130
—— *See* Kensler, C. J., *823, 880
Dysgerminoma, ovarian, accompanied by tuberculoid reaction. Heller, E. L., 563
Dysontogenetic tumors, ovary, endocrine effects. Novak, E., 563

Ear, internal, melanosis. Lederer, F. L., 789
—— metastatic malignant neoplasm of external auditory canal and middle ear. Johnson, H. R., 789
—— osteoma of external auditory canal. Druss, J. G., *et al.,* 789
Earle, W. R., 710
Eberlin, S. L. *See* Abels, J. C., 486
Echols, D. H., *et al.,* 420, 493, 643
Ecker, A., 493
Ectopia, crossed renal, carcinoma. Langworthy, H. T., *et al.,* 346
Edelman, L., 885
Edwards, J. E., *et al.,* 343 (2 abs), 414, 487, 561
—— *See* Andervont, H. B., 486, 626 (2 abs)
—— *See* Dalton, A. J., 341, 630
—— *See* Greenstein, J. P., 416
—— *See* Lippincott, S. W., 561
—— *See* White, J., **129, 338 (2 abs), 340, 417
Eggers, H. E. *See* Lauridsen, J., *43, 140
Ehrlich, H. E., *et al.,* 637
—— *See* Lebowich, R. J., 638
Ehrlich, M. M. *See* Bennett, H. G., Jr., 790
Eisen, M. J., 707
Electroencephalography, diagnosis of removable brain tumor. Woltman, H. W., *et al.,* 636
Electron microscope, papilloma virus protein study. Sharp, D. G., *et al.,* 556
Electrosurgery, cancer of rectum. Roffo, A. H., *et al.,* 725
—— high frequency currents. de Cholnoky, T., 883
Elsberg, C. A., 884
Embryo, chick, growth of cancer yolk sac. Taylor, A., *et al.,* 556
—— —— —— —— chicken sarcoma virus in absence of neoplasia. Mjlford, J. J., and Duran-Reynals, F., *578, 707
—— mammalian tissues, heterologous transplantation. Greene, H. S. N., *809, 881
Emerson, H. *See* Pohlen, K., 648
Emge, L. A., 711
Encephalography, cerebellar tumor. Gardner, W. J., *et al.,* 418
Endocrine action of gastric mucosa. Abrahamson, R. H., 424
—— effects in advanced prostatic cancer. Huggins, C., 794
—— —— of dysontogenetic tumors of ovary. Novak, E., 563
—— factors influencing tumor development, gonadotropins. Bischoff, F., *et al.,* 489
—— manifestations, ovarian tumors. Scheffey, L. C., 720
—— treatment, prostatic cancer. Dean, A. L., *et al.,* 422
—— —— —— —— Marquardt, C. R., *et al.,* 795
Endometriosis, external and internal, and uterine fibroids, incidence of endometrial hyperplasia. Henderson, D. N., 791
—— pelvis. Dannreuther, W. T., 791
Endometrium and ovary, fundal carcinomas. Jones, H. O., *et al.,* 791

Endometrium carcinoma and ovarian theca cell tumor. Porter, J. E., *et al.*, 808
—— —— treatment. Smith, G. Van S., 564
Endothelioma (Ewing's tumor), hip disarticulation. Smith, B. C., 804
—— pleura. Saccone, A., *et al.*, 721
—— —— roentgenology. Doub, H. P., *et al.*, 639
Endotoxin antigens of gram-negative bacteria, relationship to tumor-hemorrhagic agent. Zahl, P. A., *et al.*, 629
Engle, E. T., Krakower, C., and Haagensen, C. D. Estrogen administration to aged female monkeys with no resultant tumors, *856, 878
Environment, effect on tumor formation. Russell, W. L., **126
Enzyme activity, transplanted adenocarcinoma of glandular stomach. Greenstein, J. P., *et al.*, 339
—— —— transplanted hepatomas and normal, regenerating, and fetal liver. Greenstein, J. P., *et al.*, 416
—— and virus theory of carcinogenesis. Potter, V. R., *358, 490
—— deficiency in human cancer. Roskelley, R. C., Horwitt, B. N., and Salter, W. T., **131
—— spectrum, cancerous tissues of hepatic and mammary origin. Greenstein, J. P., **120
Enzymology, tumor. Greenstein, J. P., 628
Eosinophil factor in resistance to Brown-Pearce tumor. Casey, A. E., **121
Ependymoma removed from cervical portion of spinal cord. Baker, G. S., *et al.*, 715
Epidermoid and dermoid tumors, intracranial. Martin, J., *et al.*, 637
—— —— —— —— spinal cord. Craig, R. L., 716
—— carcinoma implanted in pelvic peritoneum. Williams, C., *et al.*, 720
—— —— rate and periodicity of mitosis. Blumenfeld, C. M., 630
—— tumors above and below tentorium. Black, H. A., 636
—— —— dermoids, and teratomas of central nervous system. Peyton, W. T., *et al.*, 493
Epididimis, tumors, tunica vaginalis. Mackay, C. H., 795
Epithelioid cell, glomus tumor, identity. Murray, M. R., *et al.*, 211
Epithelioma and keratoses, human, respiration. Amersbach, J. C., *et al.*, 277
Epithelioma, basal cell. Butterworth, T., 788
—— —— —— histogenesis. Holtzmann, I. N., 143
—— —— —— multiple, from congenital pigmented basal cell nevi. Nisbet, T. W., 562
—— from nevus, lymph node metastases. Ponce, M. E., 715
—— limbus. Ash, J. E., *et al.*, 788
—— intraepithelial, cornea and conjunctiva (Bowen's disease). McGavic, J. S., 789
—— skin, histology. Sutton, R. L., Jr., 143
—— squamous cell, gall bladder. Wiig, L. M., *et al.*, 727
—— superficial mucosal, of upper respiratory and alimentary tracts, and Bowen's disease. Brighton, G. R., 798
Equen, M., *et al.*, 639
Erich, J. B., 804
—— *See* New, G. B., 800
Esophagus and proximal portion of stomach, transthoracic resection of carcinoma. Phemister, D. B., 280
—— —— stomach carcinoma, resection. Meyer, H. W., 725
—— carcinoma. Adams, H. D., 801
—— —— Garlock, J. H., 885
—— —— Watson, W. L., 726
—— —— in oldest patient. Waugh, J. M., *et al.*, 726
—— —— excision and reconstruction of antethoracic esophagus. Allison, P. R., 722
—— —— resection and esophagogastrostomy. Brantigan, O. C., *et al.*, 722
—— —— thoracic esophagectomy. Santy, P., *et al.*, 725
—— fibroma. Adams, R., 640
—— intramural extramucosal tumors, roentgenological appearance. Schatzki, R., 714
—— pedunculated tumors. Samson, P. C., *et al.*, 725
Esophagus, upper, and pharynx, carcinoma, surgery. Wookey, H., 423
Espaniola, N. *See* Acosta-Sison, H., 790
Essenberg, J. M., *et al.*, 647
Esterase in livers of mice and its excretion in strains susceptible or insusceptible to mammary cancer. Chitre, R. G., and Khanolkar, V. R., *88, 209
Estradiol benzoate effect on epidermal methylcholanthrene carcinogenesis. Paletta, F. X., *et al.*, 276
Estrogen administration and castration, prostatic carcinoma. Chute, R., *et al.*, 638
—— —— —— —— for prostatic carcinoma. Marquardt, C. R., 795
—— —— to aged female monkeys, no resultant tumors. Engle, E. T., Krakower, C., and Haagensen, C. D., *858, 878
—— and androgen ratio, urinary, and benign prostatic hypertrophy. Miller, M. L., *et al.*, 884
—— —— 17-ketosteroid excretion in patients with breast carcinoma. Taylor, H. C., Jr., Mecke, F. E., and Twombly, G. H., **131, *180, 276
—— —— testosterone propionate effect on incidence of spontaneous hepatomas. Schenken, J. R., and Burns, E. L., *693, 785
—— excretion before and after castration for prostatic cancer. Scott, W. W., *et al.*, 631
—— in genesis of tumors and cancers. Allen, E., 632
—— inducing mammary cancer. Parsons, W. H., *et al.*, 562
—— —— —— —— spectrochemistry. Strait, L. A., McCawley, E. L., *378, 489
—— —— —— —— spectrochemistry, distribution of triphenylethylene. Perry, I. H., Strait, L. A., and McCawley, E. L., *378, 489
—— metabolism. Dorfman, R. I., and Fish, W. R., **120
—— testosterone, and progesterone effects on benign mammary tumors. Heiman, J., *65, 141
—— treatment, prostatic carcinoma. Kearns, W. M., 795
—— —— —— —— Unger, A., 796
Evans, N., *et al.*, 212, 647
—— *See* Bonn, H. K., 493
Evans, S. D., 717
Evensen, O. K., *et al.*, 347
Ewing's tumor. *See* Sarcoma
Exophthalmos, unilateral, caused by meningiomas in region of sphenoid ridge. Barens, S. N., 715
Exostoses, multiple benign, malignant degeneration. Bennett, G. E., *et al.*, 643
Extracts, liver carcinoma, cancer induced by. Craciun, E. C., *et al.*, 784
Extremities, melanoepithelioma. Bickel, W. H., *et al.*, 561
—— soft parts, fibrosarcoma. Zieman, S. A., 562
—— upper, carcinoma. Campbell, D. A., 143
Eye, bilateral metastasis following breast carcinoma. Jensen, A. F., 717
—— Bowen's disease of cornea. Wise, G., 789
—— carcinoma of limbus. Evans, S. D., 717
—— epithelial tumors of limbus. Ash, J. E., *et al.*, 788
—— glioma of retina in successive generations. Benedict, W. L., *et al.*, 787
—— in adrenal sympathicoblastoma. Bothman, L., *et al.*, 717
—— intraepithelial epithelioma of cornea and conjunctiva (Bowen's disease). McGavic, J. S., 789
—— lacrimal gland, lymphosarcoma with giant lymph follicle hyperplasia. Perera, C. A., *et al.*, 718
—— melanomas of choroid. Rones, B., 789
—— —— —— —— and ciliary body. Callender, G. R., *et al.*, 789
—— —— —— —— malignant. Harlowe, H. D., 717
—— metastases to orbit from adrenal neuroblastoma. Guibor, G. P., 789
—— neoplasms and other lesions induced by ultraviolet radiation. Lippincott, S. W., *et al.*, 709
—— neurofibromatosis about orbit. Spaeth, E. B., 718
—— optic nerve tumors studied in Brazil, relation to von Recklinghausen's disease. Gomes, J. P., 717

Eye, orbital melanoma. Rottino, A., *et al.,* 718
—— —— metastasis from pancreas tumor. Sniderman, H. R., 789
—— —— psammoma. Fry, W. E., *et al.,* 717
—— —— rhabdomyosarcoma. Calhoun, F. P., Jr., *et al.,* 717
—— —— tumors. Reese, A. B., 718
—— —— —— transcranial removal. Love, J. G., 718
—— retinal glioma, surgery and irradiation. Martin, H., *et al.,* 718
—— sarcoma, idiopathic multiple hemorrhagic, on eyelid. Graham, T. N., 717
—— —— of choroid. Barlow, A., 788
—— —— —— iris. McKee, S. H., 718
—— teratoid tumor of conjunctiva, and nevus verrucosus of scalp. Sherman, A. R., 789
—— tuberous sclerosis of retina, Bourneville's disease. Loewenstein, A., *et al.,* 717

Face and mouth cancer. Blair, V. P., *et al.,* 639
—— and cranium, hemangioma. Shapiro, L. B., 887
—— cancer. New, G. B., 715
—— head and neck tumors. Wolfer, J. A., 808
—— jaws, and neck, cancer, relief of pain by neurosurgery. Munro, D., 491
Fadkin, N. F. *See* Campbell, E., *et al.,* 567
Faison, J. B. *See* Gnassi, A. M., 211
Falconer, E. H. *See* Newell, R. R., 644
Fallopian tubes, carcinoma. Baker, J. O., *et al.,* 718
—— —— —— Hobbs, J. E., 211
—— —— —— Kimball, T. S., *et al.,* 563
—— —— —— McGoldrick, J. L., *et al.,* 563
—— —— in spread of pelvic cancer. Wallis, O., 793
—— —— normal left, spontaneous amputation and acute torsion, and fibroma of right ovary. Barrett, C. W., *et al.,* 790
—— —— role in spread of pelvic carcinoma. Wallis, O., 349
Falls, H. F., 787
Farrow, J. H., *et al.,* 562
Fat, tumor-promoting action. Lavik, P. S., and Baumann, C. A., *749, 879
Fatty acids, unsaturated, in dietary destruction of *N,N*-dimethylaminoazobenzene and in production of anemia. György, P., *et al.,* 555
Faust, J. J., 634
Fekete, E. *See* Woolley, G. W., **120, 632
Fellman, M. *See* Gnassi, A. M., 211
Femur, central chondrosarcoma. Kennedy, R. H., 727
—— osteogenic sarcoma, amputation. Solley, F. W., 727
Fenichel, N. *See* Kurzrok, L., 645
Ferrari, R. C. *See* Roffo, A. H., 800
Ferris, D. O., 794
Fetter, F., 721
Fetter, T. R., 422
Fetterman, F. S. *See* Macfarlane, C., 808
Fever and x-ray therapy in cancer. Shoulders, H. S., *et al.,* 491, 635
Fibroadenoma, bilateral giant, simulating cancer in pregnancy. Reed, H. L., *et al.,* 638
—— bile cell, of liver. Lee, E. S., 565
—— mammary gland, high incidence in rat strain, anterior hypophyses and ovaries. Wolfe, J. M., and Wright, A. W., *497, 631
—— transplantable, carcinomatous transformation. Selbie, F. R., 142
Fibroblasts, normal and malignant, living, nucleolar vacuoles. Lewis, W. H., *531, 630
—— treated with 20-methylcholanthrene, changes. Earle, W. R., 710
—— —— —— —— morphology of derived sarcomas. Nettleship, A., 711
Fibrochondroma in infant. Prewitt, L. H., *et al.,* 721
Fibroma and antifibromatogenic action of steroid hormones. Lipschütz, A., 208
—— —— myxoma viruses, antigenic relationship. Shaffer, J. G., 555
—— bone, nonosteogenic. Jaffe, H. L., *et al.,* 280
Fibroma, desmoid tumors. Pearman, R. O., *et al.,* 887
—— esophagus. Adams, R., 640
—— experimental, in guinea pig, analogy to human myomas. Marx, R., *et al.,* 878
—— —— —— hypophysectomized female guinea pigs. Vargas, L., Jr., *309, 414
—— fallopian tube and ovary. Barrett, C. W., *et al.,* 790
—— liver. Chifflet, A., 803
—— ovarian, and hydrothorax (Meigs' syndrome). Herrick, W. W., *et al.,* 563
—— postnasal. Schuster, F. P., 144
—— uterine, cell rest. Peale, A. R., *et al.,* 563
—— —— pregnancy. Thompson, G. G., 720
—— virus, Shope, transformation into Sanarelli infectious myxomatosis virus. Houlihan, R. B., 708
Fibromyoma, uterine, sarcoma in. Goldberger, M. A., 884
Fibrosarcoma, arachnoidal origin, with metastases. Russell, W. O., *et al.,* 279
—— buttock, associated with pregnancy. Kirtz, L. P., *et al.,* 808
—— chest wall, following thoracic trauma. Blake, J. M., *et al.,* 639
—— endometrial polypoid. Lomax, J., *et al.,* 792
—— finger. Zieman, S. A., 420
—— methylcholanthrene, effects of lowered body temperatures. Hill, R. M., Rutledge, E. K., Ware, A. G., Schultz, F. H., and Livingston, W. H., *841, 879
—— soft parts of extremities. Zieman, S. A., 562
—— spontaneous, mouse foreleg and paw. Edwards, J. E., *et al.,* 561
—— transplanted, sarcoma factor extractable. Aptekman, P. M., King, H. D., and Lewis, M. R., *856, 877
Ficarra, B. J. *See* Freiman, I. S., 716
Figi, F. A., 798
Finesilver, E. M., 723
Finger, fibrosarcoma. Zieman, S. A., 420
Firor, W. M., *et al.,* 723
Fish, G. W. *See* Melicow, M. M., 795
Fish, W. R. *See* Dorfman, R. I., **120
Fish of snapper family (Lutianidae), nerve sheath tumors. Lucké, B., 343
Fisher, H. R., 566 (2 abs)
Fishman, M., *et al.,* 206
Fitzhugh, O. G. *See* Nelson, A. A., *230, 338
Flaherty, W. A. *See* Marquardt, C. R., 795
Flax, J., 727
Fletcher, G. W., 798
Flory, C. M., Furth, J., Saxton, J. A., Jr., and Reiner, L. Chemotherapeutic studies on transmitted mouse leukemia, *729, 880
Fluorescence, 3,4-benzpyrene *in vivo,* distribution, especially on skin. Doniach, I., *et al.,* 626
—— —— —— —— interrelationship of derivatives formed in various sites. Doniach, I., *et al.,* 626
—— carcinogens, factors altering. Miller, J. A., and Baumann, C. A., *223, 337
—— hydrocarbons, effect of naphthacene. Miller, J. A., and Baumann, C. A., *217, 337
—— —— —— —— oxygen. Miller, J. A., *et al.,* 877
—— quenching by nitric oxide. Weil-Malherbe, H., *et al.,* 627
—— skin carcinogens, localization of 20-methylcholanthrene after single application. Simpson, W. L., and Cramer, W., *362, 487
—— spectrum, Cd.-irradiated cholesterol and 1,2-benzpyrene. Roffo, A. E., Jr., 785
—— technic for determining, at Buenos Aires Institute of Experimental Medicine. Roffo, A. E., Jr., 709
Fluorometry, two-condition, determination of carcinogenic hydrocarbons in animal tissue. Miller, J. A., and Baumann, C. A., *849, 877
Foley, F. E. B. *See* Ikeda, K., 794
Foot, N. C., 345
Foot, carcinoma digiti pedi superimposed upon ringworm. Berlin, C., 788
—— neurofibroma. Hauser, E. D. W., 788
Foreleg and paw, spontaneous fibrosarcoma in mouse. Edwards, J. E., *et al.,* 561

Forestomach, epithelial hyperplasia, choline and pyridoxin preventing. Sharpless, G. R., 417
—— —— —— induced by diet in rats and mice. Sharpless, G. R., *108, 210
Forsythe, R., *See* Franz, V. K., 887
Forsythe, W. E., 348
Foster, J. H., 799
Foster nursing. *See* Nursing
Foulds, G. S., 346
Fowl leukosis. *See* Leukosis
Fowler, H. A., 565
Fox, G. R., 713
Fox, R. A., 211
Franchi, P. H., *et al.,* 886
Frank, E. R., *et al.,* 786
Frank, L. W., *et al.,* 802
Franseen, C. C., 568
Franz, V. K., *et al.,* 887
—— *See* Keston, A. S., 344
Freedberg, H. *See* Jankelson, I. R., 641
Freedlander, S. O., *et al.,* 423
Freedman, L. M. J., *et al.,* 639
Freeman, B. S. *See* Moreland, R. B., 642
Freezing rate, effect on survival of transplantable tumors. Snell, G. D., *et al.,* 490
Freiman, I. S., *et al.,* 716
French, L. A., *et al.,* 493
Fricke, R. E., 491 (3 abs), 634
Friedell, H. L. *See* Treadwell, A. deG., 344
—— *See* Vieta, J. O., 806
Friedell, M. T., 723
Friedewald, W. F., 556
Friedman, A. P., 716
Friedman, H. F. *See* Fishman, M., 206
Friedman, N. B. *See* Warren, S., 492
Frog development, early, effects of water-soluble carcinogen. Briggs, J. B., and Briggs, R. W., *1, 140
—— kidney carcinoma transplanted into tadpole tails, growth and regression. Briggs, R., and Grant, R., *613, 710
—— lesions induced by irradiation of sperm cells. Henshaw, P. S., **127, 709
Fry, W. E., *et al.,* 717
Furth, J., *et al.,* 881
—— *See* Burk, D., **121, 560
—— *See* Flory, C. M., *729, 880
—— *See* McEndy, D. P., **121, 560

Gabriel, F. R. *See* Herbut, P. A., 348
Gall, E. A., *et al.,* 566
Gall bladder and bile, human, carcinogenic extract. Steiner, P. E., 488
—— —— carcinoid tumor. Bosse, M. D., 726
—— —— carcinoma. Mattson, H., 726
—— —— squamous cell epithelioma. Wiig, L. M., *et al.,* 727
Gallagher, V. J. *See* Scholl, A. J., 565
Galloway, T. C. *See* Soper, G. R., 800
Ganglioglioma, brain. Courville, C. B., *et al.,* 716
Garcia, M. *See* Pearson, B., **132, 638
Gardner, H. L., *et al.,* 807
Gardner, W. H., *et al.,* 418
Gardner, W. U. Spontaneous testicular tumors in mice, *757, 878
—— Testicular tumors in mice of several strains receiving triphenylethylene, *92, 208
—— *See* Allen, E., **124
—— *See* Collins, V. J., *29, 140
Garlock, J. H., *et al.,* 424, 885
—— *See* Sallick, M. A., 806
Garner, J. M. *See* Nesselrod, J. P., 725
Garrey, W. E., 561
Gastric. *See* Stomach
Gastrointestinal tract, carcinoma, lymphatic metastases. Kay, E. B., 724
—— —— —— patients, metabolism and conjugation of phenols. Abels, J. C., Pack, G. T., and Rhoads, C. P., *177, 277
Gastrointestinal tract, intramural extramucosal tumors, roentgenological appearance. Schatzki, R., 714
—— —— lesions produced by irradiation. Mulligan, R. M., 492
—— —— —— —— by radiation. Warren, S., *et al.,* 492
—— —— lymphoblastoma. Weber, H. M., *et al.,* 714
—— —— lymphoid tumors. Warren, S., *et al.,* 803
—— —— malignant carcinoid tumors. Satory, J. J., 424
Gatewood, E. T., 799
Gaynor, E. P. *See* Sumner, W. A., 798
Geer, W. A. *See* Patterson, D. C., 725
Gene, lethal yellow (*A*), and susceptibility to induced pulmonary tumors, relation. Heston, W. E., 560
Genesis and growth, subcutaneous methylcholanthrene tumors and transplantable sarcoma, climatic effect. Wallace, E. W., 556
—— cancer. MacCarty, W. C., Sr., 712
—— —— Magnelia, A. L., *et al.,* 878
Genetics, analysis of tumor induction by methylcholanthrene. Strong, L. C., Collins, V. J., and Durand, E. A., *21, 141
—— cancer. Macklin, M. T., 712
—— reactions of hybrid and parabiontic pseudo-hybrid mice to tumor C198. Cloudman, A. M., *47, 142
—— susceptibility to induced pulmonary tumors. Heston, W. E., **125, 559
—— —— —— methylcholanthrene tumors in inbred mice. Burdette, W. J., and Strong, L. C., *13, 141
—— —— —— spontaneous pulmonary tumors. Heston, W. E., 559
—— —— —— transplantable melanoma. Spangler, J. M., *et al.,* 559
—— tumors and cancers, relation of estrogenic hormones. Allen, E., 632
—— —— in *Drosophila melanogaster.* Russell, E. S., 882
Genital anlage, undeveloped, seminoma. Wells, H. G., 565
—— cancer, local refrigeration. Gordon, C. A., *et al.,* 791
—— —— radiation. Schmitz, H. E., 714
—— tract, female, carcinoma. Adair, F. L., 718
—— —— —— —— Waugh, J. M., 564
—— —— —— —— radium therapy. Fricke, R. E., 491, 634
—— —— —— external, carcinoma. Johnston, H. W., 719
—— —— —— —— overdevelopment accompanying adrenal tumor in infant. Neff, F. C., *et al.,* 645
Genitourinary tract carcinoma. Barringer, B. S., 422
—— —— in leukemia. Meyer, L. M., 805
—— —— infections, cancer discovered in males. Brunet, W. M., 647
Gens, J. P. *See* Chute, R., 422
Gentile, R. J., *et al.,* 646
Gershon-Cohen, J., *et al.,* 418
Geschickter, C. F., 727
—— *See* Lamb, J. H., 420
Getzoff, P. L. *See* Kahle, P. J., 213, 795
Gewanter, A. P., *et al.,* 568
Ghormley, R. K., *et al.,* 643, 713
—— *See* Coventry, M. B., 647
—— *See* Hoffmann, H. O. E., 728
Giant cell tumor, atypical. Coley, B. L., 71
—— —— —— bronchiogenic, left lung, associated with hypertrophic pulmonary osteoarthropathy. Poley, P. P., *et al.,* 786
—— —— —— calcifying or chondromatous, considered benign chondroblastoma of bone. Jaffe, H. L., *et al.,* 643
—— —— —— malignant change. Hazel, O. G., *et al.,* 804
—— —— —— spine. Coray, Q. B., 280
Gibbon, J. H., Jr., *et al.,* 723
Giffin, L. A. *See* Waugh, J. M., 726
Gigantism, pituitary. Hurxthal, L. M., 646
Gilbert, J. B., 422
Gilchrist, R. K., *et al.,* 723, 802
—— *See* David, V. C., 280, 722
Gildersleeve, G. H., 716
Gill, E. G., 799
Ginsberg, S. T., *et al.,* 723
—— *See* Arenson, N., 715
Ginzburg, L. *See* Garlock, J. H., 424
Giragossintz. *See* Michaels, G., 494

Glass, A. *See* Garlock, J. H., 424
Glass, S. *See* Marx, R., 878
Glioblastoma multiforme. Williams, H. W., *et al.*, 717
Glioma, cerebral, treatment. Jenkinson, E. L., *et al.*, 345
—— diencephalon, in manic patient. Stern, K., *et al.*, 717
—— intramedullary, secondary meningeal gliomatosis. Amyot, R., 636
—— retina, in successive generations. Benedict, W. L., *et al.*, 787
—— —— surgery and irradiation. Martin, H., *et al.*, 718
—— roentgen ray diagnosis. Sterling, H. W., 714
Globus, J. H., *et al.*, 420 (2 abs), 493, 884
Glomus tumor. Hoffmann, H. O. E., 728
—— —— distribution and behavior. Murray, M. R., *et al.*, 211
—— —— neuromyoarterial, subcutaneous. Jaegar, J. R., *et al.*, 420
Glutathione hydrolysis by cathepsins of normal tissues and hepatoma 31. Maver, M. E., *et al.*, 628
Glycerophosphatases of *p*-dimethylaminoazobenzene liver cancer. Woodard, H. Q., *159, 277
"Glyoxylide" report by Ontario Commission for Investigation of Cancer Remedies, 712
Gnassi, A. M., *et al.*, 211, 808
Goerner, A., and Goerner, M. M. Vitamin A and the toxic action of dibenzanthracene on the tissues, *883, 880
Goerner, M. M. *See* Goerner, A., *833, 880
Goin, L. S., 71
Gold, I. R., *et al.*, 641
Goldberg, M. B., *et al.*, 567
Goldberger, M. A., 884
Goldfeder, A. Cell viability as a factor in inducing resistance to malignant growth, **127
—— 708
Goldfish tumor, diplochromosomes. Biesele, J. J., *411, 490
Goldhamer, S. M., 805
Goldman, C., *et al.*, 214
Goldschmidt, B. *See* Marinelli, L. D., 631
Goldstein, A. E. *See* Abeshouse, B. S., 796, 797
Goldstein, H. I., 802
Golgi apparatus and mitochondria, induced and spontaneous hepatomas. Dalton, A. J., and Edwards, J. E., **129, 341
Goltz, H. L. *See* Hoffman, J. G., **126, *237, 341
—— *See* Reinhard, M. C., 713
Gomes, J. P., 717
Gonadotropin administered at early cancer age influencing tumor development. Bischoff, F., *et al.*, 489
—— excretion before and after castration for prostatic cancer. Scott, W. W., *et al.*, 631
—— urinary, assay in testicular tumor. Main, R. J., 795
—— values, high, in chorionepithelioma following tubal pregnancy. Smith, J. T., *et al.*, 793
Good, C. A., 641
Goodman, D. H., 642
Goodof, I. I., *et al.*, 647
Goodwin, R. H., 791
Gordon, A. J. *See* Churg, J., 280
Gordon, C. A., *et al.*, 791
Gordon, E. *See* Dobriner, K., **132
Gordon, H., 794
Gorham, A. T. *See* Abels, J. C., 486
Gottschalk, R. G. Observations on a chemically induced chicken tumor containing an antigen related to that of a leukosis sarcoma agent, *649, 785
—— 487
Grace, E. J., 721
Grady, H. G., *et al.*, 558
—— **Blum, H. F., and Kirby-Smith, J. S.** Histologic types of cutaneous tumors induced by ultraviolet radiation in strain A mice, **128
—— *See* Andervont, H. B., 486
—— *See* Blum, H. F., **128, 557, 558
—— *See* Kirby-Smith, J. S., **128, 208
—— *See* Lippincott, S. W., 561
Graham, E. A. *See* Womack, N. A., 279
Graham, T. N., 717
Grains, presence of factors inhibiting tumor growth. Lewisohn, R., *et al.*, 879
Graña, A. *See* Franchi, P. H., 886
Grand, C. G., and Cameron, G. Human lymph nodes of Hodgkin's disease grown in tissue culture, **133
—— **and Chambers, R.** Effect of x-radiation on hypotonic cytolysis of sea urchin eggs, **127
—— *See* Chambers, R., **127
Grant, R. *See* Briggs, R., *613, 710
Grant, W. H. *See* Shoulders, H. S., 635
Granulosa cell tumor. *See* Ovary
Graves, S. C., 562
Grawitz tumor, so called, histogenesis. Schiller, W., 346
Gray, H. K., 641
Gray, L. H., *et al.*, 883
Gray, L. M., 646
Grayzel, D. M. *See* Gold, I. R., 641
—— *See* Lederer, M., 568
—— *See* Rosenblatt, P., 422
Greenberger, E. D., 787
Greene, H. S. N. The heterologous transplantation of embryonic mammalian tissues, *809, 881
—— The occurrence and transplantation of embryonal nephromas in the rabbit, *434, 561
—— **and Brown, W. H.** A transplantable squamous cell carcinoma in the rabbit, *53, 142
Greenfield, J. *See* Freedlander, S. O., 423
Greenhill, J. P., 491
Greenstein, J. P. The enzyme spectrum in normal and cancerous tissues of hepatic and of mammary origin, **120
—— *et al.*, 70 (2 abs), 141, 339 (3 abs), 416 (2 abs), 555, 627, 628 (3 abs), 709
—— **White, J., and Andervont, H. B.** The liver catalase activity of normal and of tumor-bearing rats and mice, **120
Gregg, R. O., *et al.*, 723 (2 abs)
Griffin, L. A. *See* Waugh, J. M., 726
Griffin, L. L., *et al.*, 644
Griswold, M. H., 794
Gross, L. Intradermal immunization of C3H mice against a sarcoma that originated in an animal of the same line, *326, 417
—— The importance of dosage in the intradermal immunization against transplantable neoplasms, *770, 881
—— 341
Grossman, A. *See* Uhlmann, E., 72
Growth and new growth. 71
—— influence of one tumor upon another. Russ, S., 142
—— inhibitors, tumor, rapid test. Laszlo, D., and Leuchtenberger, C., *401, 490
Gruenwald, P., 421
Guibor, G. P., 789
Guinea fowl and turkey infection by Rous sarcoma virus. Duran-Reynals, F., *569, 707
Gutman, A. B., 212
—— *See* Sullivan, T. J., 213
Gutman, E. B. *See* Sullivan, T. J., 213
Gynecology, malignant disease. McKelvey, J. L., 719
—— operations. Heaney, N. S., 791
Gynecomastia associated with extragenital chorionepithelioma. Bonn, H. K., *et al.*, 493
György, P., *et al.*, 555

Haagensen, C. D. *See* Engle, E. T., *858, 878
Habein, H. C. *See* Tillisch, J. H., 796
Hadley, G. H., 788
Hafström, T., 144
Hagyard, C. E., 802
Halter, R. *See* Abels, J. C., 486
Hamartoma, excision in infant. Benson, C. D., *et al.*, 726
Hamby, W. B., 727
Hamilton, J. G., 785
Hamm, F. C., 212
Hammond, A. E., 799
Handwriting, early symptoms of malignant tumors. Kanfer, A., 787
Hanford, J. M., *See* Franz, V. K., 887

Hare, H. F., 634
Harkrader, C. J., Jr. *See* Swineford, O., 279
Harless, M. S. *See* Robinson, D. W., 639
Harlowe, H. D., 717
Harms, C. R., *et al.,* 568
Harrington, S. W., *et al.,* 279, 647
Harris, M. The growth of alien strain tumors in parabiotic mice, *546, 629
Harris, W., 886
Harris, W. H., *et al.,* 211, 639
Harris, W. H., Jr., 423
Hartwell, J. L., *et al.,* 554
—— **Shear, M. J., and Adams, J. R., Jr.** Nature of the bacterial polysaccharide which causes hemorrhage in mouse sarcoma, **122
Hartz, P H., *et al.,* 421, 567
Hartzell, H. V., 634
Harvey, W. F., 419
—— *See* Dawson, E. K., 345
Hastings, W. S., 808
Hause, W. A. *See* Miller, F. R., 629
Hauser, E. D. W., 788
Hauser, H., 640
Havens, F. Z., 799
Hawes, L. E. *See* Schatzki, R., 714
Hazel, O. G., *et al.,* 804
Head and neck, schwannomas. Ehrlich, H. E., *et al.,* 637
—— face, and neck tumors. Wolfer, J. A., 808
Headache, intracranial tumors. Pollock, L. J., 493
Heaney, N. S., 791
Heart and thyroid metastasis from kidney carcinoma. Dublin, W. B., 797
—— tumors, secondary. Herbut, P. A., *et al.,* 347
Hebbel, R., 641
Heburn, H. H., 716
Hecht, E. B., 716
Heckel, N. J., *et al.,* 212
Hefferman, R. J., 563
Hegner, C. F., 789
Heiman, J. Comparative effects of estrogen, testosterone, and progesterone on benign mammary tumors of the rat, *65, 141
Held, I. W., *et al.,* 347, 641
Hellandall, H., 568
Heller, E. L., 563
Hellwig, C. A. *See* Drake, R. L., 279
Helwig, E. B., 641
Hemangioendothelioma, hepatic lesions, hepatomas, and pulmonary tumors, induced with *o*-aminoazotoluene. Andervont, H. B., *et al.,* 486
—— malignant, transplantable, of liver. Edwards, J. E., *et al.,* 343
Hemangioma. Bailey, W., *et al.,* 424
—— Kinney, K. K., 805
—— capillary, of round ligament of uterus. Schnedorf, J. G., 564
—— cavernous, contact roentgen irradiation. Kerr, H. D., 634
—— —— liver. Morton, H. B., 347
—— —— skull. Echols, D. H., *et al.,* 643
—— facial and intracranial. Shapiro, L. B., 887
—— ileum. Christopher, F., 280
—— kidney. McLean, E. H., *et al.,* 797
—— spleen. Pines, B., *et al.,* 348
—— stomach. Morton, C. B., *et al.,* 642
Hemangiopericytoma of omentum. Stout, A. P., *et al.,* 887
Hemochromatosis with primary neoplasm of liver. Saward, E. W., 566
Hemoglobin level in embryonic chick, effect of yolk sac-cultivated tumors. Taylor, D. R., McAfee, M., and Taylor, A., *542, 629
Hemolymph nodes, formation after 1,2,5,6-dibenzanthracene treatment. Lasnitzki, A., *et al.,* 337
Hempelmann, L. H., Jr., 713
Henderson, A. F. *See* Alyea, E. P., 211, 422
Henderson, D. N., 563, 791
Henderson, R. C., 647
Henner, R., 799
Henshaw, P. S. The production of tumor-like growths by irradiation of sperm, **127, 709
Hepatolithiasis, cholangioma of liver. Sanes, S., *et al.,* 565
Hepatoma. *See* Liver
Hepatomegaly. Ledlie, R. C. B., 726
Hepler, A. B., 788
Herbst, W. P., 212, 794
Herbut, P. A., *et al.,* 347, 348
Heredity. *See* Genetics
Herger, C. C., *et al.,* 346, 794, 797
Herrell, W. E. *See* Zemke, E. E., 793
Herrick, W. W., *et al.,* 563
Herrlin, J., Jr., *et al.,* 568
Herrmann, W. W. *See* Miller, E. R., 635
Hess, E. F. *See* Tuta, J. A., *et al.,* 798
Heston, W. E. A genetic analysis of susceptibility to induced pulmonary tumors in mice, **125, 559
—— 559 (2 abs), 560
—— *See* Edwards, J. E., 487
—— *See* White, J., 707
Hewes, F. L. *See* Ritvo, M., 72
Hewett, C. L. *See* Badger, G. M., 413
Hibbard, J. S., 641
Hiebert, A. E. *See* Reed, H. L., 638
Hiemstra, W., *et al.,* 638
Hill, A. J. *See* Platou, R. V., 727
Hill, B. R., *et al.,* 878
Hill, H. P. *See* Newell, R. R., 644
Hill, R. M., Rutledge, E. K., Ware, A. G., Schultz, F. H., and Livingston, W. H. The effects of lowered body temperatures on methylcholanthrene fibrosarcomas in rats, *841, 879
—— **Ware, A. G., and Schultz, F. H.** A technic for the production of hypothermia in albino rats, *839, 879
Hill, R. P., *et al.,* 789
Hilliard, T. L., 637
Hines, R. E., 647
Hinton, J. W., 802
—— *See* Abrahamson, R. H., 424
Hip disarticulation for endothelioma (Ewing's tumor). Smith, B. C., 804
Hirsch, E. F., 647
Histamine, blood, in gastric cancer and peptic ulcer. Shimkin, M. B., *et al.,* 886
Hix, J. B., 808
Hoarseness and cancer of the larynx. Clerf, L. H., 798
—— symptom of neoplasms. Watkins, S., 800
Hobbs, J. E., 211
Hoch-Ligeti, C., 275
Hodge, C. C. *See* Gibbon, J. H., Jr., 723
Hodges, F. M., *et al.,* 71
Hodgkin's disease. Bersack, S. R., 805
—— —— Burger, R. E., 144
—— —— Slaughter, D. P., *et al.,* 215
—— —— and lymphosarcoma in bone. Vieta, J. O., *et al.,* 806
—— —— —— —— roengten therapy. Desjardins, A. U., 633
—— —— cutaneous ulcerative. Kierland, R. R., *et al.,* 805
—— —— duodenum. Pusch, L. C., 802
—— —— ichthyosiform atrophy of skin. Ronchese, F., 806
—— —— pregnancy complicating. Klawans, A. H., 805
—— —— —— —— Kushner, J. I., 805
Hoffman, J. G., Goltz, H. L., Reinhard, M. C., and Warner, S. G. Quantitative determination of the growth of a transplantable mouse adenocarcinoma, *237, 341
—— —— **and Warner, S.** A quantitative study of the rate of growth of a transplantable mammary adenocarcinoma of the mouse, **126
Hoffman, H. S., 565
Hoffmann, H. O. E., *et al.,* 728
Hoge, R. H., 719
Hogue, P. N., 728
Holiday, E. R. *See* Berenblum, I., *151, 275, *686, 784
Holinger, P. H., *et al.,* 799
Holman, A., 719
Holmes, G. W., 640

Holtzmann, I. N., *et al.,* 143
Hooker, C. W. *See* Pfeiffer, C. A., **124, *762, 878
Hoopes, B. F., *et al.,* 790
Hormone, and carcinoma of prostate. Creevy, C. D., 794
—— anti-, production affected by carcinogenic hydrocarbons. Hoch-Ligeti, C., 275
—— assays in diagnosis. Rakoff, A. E., 712
—— balance, altered, and prostatic cancer. Herbst, W. P., 794
—— determination of testicular tumors. Kiefer, J. H., 346
—— excretion in urine, relation to testis tumors. Ferris, D. O., 794
—— in cancer development. Hastings, W. S., 808
—— pituitary, lactogenic, initiating secretory changes in transplanted mammary gland adenocarcinoma. Eisen, M. J., 707
—— plant, inhibiting tumor growth. Kline, B. E., and Rusch, H. P., *702, 785
—— sex, and cancer. Twombly, G. H., 711
—— —— effects on cancerous and noncancerous conditions. Essenberg, J. M., *et al.,* 647
—— treatment, prostatic hypertrophy and cancer. Keyser, L. D., 795
Horn, J. I. *See* Dorn, H. F., 647
Horn, R. C., Jr., *et al.,* 637
Horowitz, M. *See* Shapiro, M. J., 717
Horrax, G., *et al.,* 807
Horsley, G. W., 723
Horsley, J. S., 279, 568, 802
Horwitt, B. N. *See* Roskelley, R. C., **131
Horwitz, T., 643
Houghton, J. D. *See* Ritvo, M., 728
Houlihan, R. B., 708
Howes, W. E., *et al.,* 143, 419, 568
Hsieh, C. K. *See* Szutu, C., 804
Hu, C. H., *et al.,* 347
Hugenholtz, M. J. *See* Hartz, P. H., 421
Huggins, C., 794
Hughes, P. B., *et al.,* 568
Hull, W. M. *See* Hazel, O. G., 804
Humerus fracture, osteogenic sarcoma following. Kirkman, J. H., 727
—— metastases from rectal carcinoma. Weston, S., 214
Hungate, R. E. *See* Taylor, A., *537, 629
Hunt, A. B. *See* Mayo, C. W., 724
Hunt, V. C., 723, 724
Huntington Memorial Hospital, surgical treatment of cancer of the breast. Simmons, C. C., 562
Hurdon, E., 496
Hurxthal, L. M., 646
Huseby, R. A. *See* Ball, Z. B., **131
Hutner, S. H., *et al.,* 710, 880
—— *See* Zahl, P. A., 629
Hyaluronidase and polysaccharide from tumors. Pirie, A., 417
Hyams, J. A., *et al.,* 806
Hydrocarbons, aromatic, derivatives related to chrysene, carcinogenic activity. Dunlap, C. E., *et al.,* 706
—— carcinogenic, and conjugated proteins, spectrography. Jones, R. N., and Creech, H. J., **134
—— —— color test. Lisle, E. B., 207
—— —— determination in animal tissue, two-condition fluorometry. Miller, J. A., and Baumann, C. A., *849, 877
—— —— dose-response data in mice. Bryan, W. R., *et al.,* 706
—— —— effect on antihormone production. Hoch-Ligeti, C., 275
—— —— inducing adenocarcinoma of pyloric stomach and other gastric neoplasms. Stewart, H. L., *et al.,* 554
—— —— —— pulmonary tumors. Shimkin, M. B., *et al.,* 207
—— —— morphology of peripheral blood of rats injected subcutaneously. Dunning, W. F., and Reich, C., *258, 342
—— fluorescence, effect of naphthacene. Miller, J. A., and Baumann, C. A., *217, 337
—— —— —— —— oxygen. Miller, J. A., *et al.,* 877
—— pure, producing cancer. Badger, G. M., 413
Hydrogen-ion concentration, normal liver and hepatic tumors. Kahler, H., *et al.,* 709
Hydrolysis of glutathione by cathepsins of normal tissues and hepatoma 31. Maver, M. E., *et al.,* 628
Hydronephrosis, giant, congenital, complicating carcinoma of ureter. Sauer, H. R., 346
Hydrothorax and ovarian fibroma (Meigs' syndrome). Herrick, W. W., *et al.,* 563
Hydroxy and quinone derivatives of 3,4-benzpyrene. Berenblum, I., *et al.,* *145, *151, 275 (2 abs)
Hygroma colli cysticum. Callister, A. C., 349
Hyman, A., *et al.,* 885, 887
Hypercalcemia caused by parathyroid tumors. Jobe, M. C., 349
Hyperinsulinism accompanying adenoma of the pancreas. Stein, W., 807
Hypernephroma and basal cell carcinoma of nose, double malignancy. Mathé, C. P., *et al.,* 418
—— bilateral. Forsythe, W. E., 348
—— intrabronchial metastasis simulating primary bronchial carcinoma. Nofsinger, C. D., *et al.,* 348
—— kidney, solitary metastasis to cerebellum. Edelman, L., 885
—— vaginal metastasis. Kurzrok, L., *et al.,* 645
Hyperparathyroidism, mouth. Strock, M. S., 567
Hypertension accompanying adrenal tumor in female infant. Neff, F. C., 645
Hypervitaminosis D, absence in mice subjected to ultraviolet radiation. Blum, H. F., *et al.,* 339
Hypopharynx and larynx, malignant disease, suspension laryngoscopy. New, G. B., *et al.,* 800
Hypophysectomy, experimental fibroids in female guinea pigs after. Vargas, L., Jr., *309, 414
Hypophysis, anterior, and ovary of rat strains, one with high incidence of mammary fibroadenoma. Wolfe, J. M., and Wright, A. W., *497, 631
—— duct tumor, craniopharyngioma. Perkins, C. W., 348
—— pars intermedia, suprasellar tumors. MacCallum, W. G., 348
Hypothalamus destroyed by tumor. Collins, V. P., 492
Hyson, E. *See* Magnelia, A. L., 878

Ikeda, K., *et al.,* 794
Ileum. *See* Intestine, small
Iliac bone, spontaneous chondrosarcoma of guinea pigs, with metastasis to mammary region. Olcott, C. T., and Papanicolaou, G. N., *321, 418
Ill, E. A., 419
Illinois, cancer control. Brokaw, R. V., 808
Immunity, acquired, cancer, multiple primary tumors. Schmidt, E. A., 646
—— antitumor, in rabbit. Gross, L., 341
—— Brown-Pearce carcinoma, attempts to abrogate. Saphir, O., and Appel, M., *767, 881
—— tumor. Spencer, R. R., 70
—— virus, continued increases of virus in V2 carcinoma during propagation in hyperimmunized hosts. Kidd, J. G., 556
Immunization, intradermal, against sarcoma originating in same mouse line. Gross, L., *326, 417
—— —— —— transplantable neoplasms, importance of dosage. Gross, L., *770, 881
Inclusion bodies and mitochondria in spontaneous hepatomas. Burns, E. L., and Schenken, J. R., *697, 785
Indeno-2″, 3″, 2′, 1′-benzanthrone. Swain, G., *et al.,* 207
Ingraham, F. D., *et al.,* 491
Ingraham, L. P. *See* Bischoff, F., 628
Innes, J. R. M., 418
Inositol, tumor growth inhibitor. Laszlo, D., *et al.,* 627
Institute of Cancer Research, Columbia University, New York, rat tumor 92. Lewis, W. H., *867, 882.
Insulin resistance in diabetes mellitus with chronic lymphatic leukemia. Levi, J. E., *et al.,* 567
Interstitial cell growths of testicle. Warren, S., *et al.,* 564
—— —— tumor, testis changes resembling early stages, after long-continued injections of pregnant mare serum. Pfeiffer, C. A., and Hooker, C. W., *762, 878

Interstitial cell tumor, testis producing pubertas precox. Werner, A. A., *et al.*, 565
Intestine, adenocarcinoma, and intraabdominal hemangioendothelioma induced by methylcholanthrene. White, J., *et al.*, 554
—— and stomach tumors, spontaneous, in guinea pigs. Papanicolaou, G. N., *et al.*, 343
—— cancer. Bargen, J. A., 801
—— lymphoid tumors. Warren, S., *et al.*, 803
Intestine, large, benign tumors. Helwig, E. B., 641
—— —— cancer symposium. Connecticut State Medical Society, 349
—— —— carcinoma. Butler, P. F., 801
—— —— —— anastomosis and resection. Gibbon, J. H., Jr., *et al.*, 723
—— —— —— —— and resection. Stone, H. B., *et al.*, 424
—— —— —— —— or exteriorization and resection. Woolf, M. S., 726
—— —— —— at St. Mary's Hospital, Waterbury, Connecticut. Burke, J. F., 801
—— —— —— early recognition. Cromar, C. D. L., 722
—— —— —— diagnosis with double contrast enema. Gershon-Cohen, J., *et al.*, 418
—— —— —— lymphatic metastases. Coller, F. A., 721
—— —— —— modified Mikulicz resection. Lahey, F. H., *et al.*, 802
—— —— —— multiple, metastasizing argentaffin tumor of cecum. Mayo, C. W., *et al.*, 725
—— —— —— recurrent. Gregg, R. O., *et al.*, 723
—— —— —— resemblance to primary carcinoma of appendix. Uihlein, A., *et al.*, 726
—— —— —— Waterbury Hospital. Collins, J. O., 722
—— —— cecum, carcinoid tumor. Waugh, J. M., *et al.*, 726
—— —— —— carcinoma, Wilcox, L. E., *et al.*, 726
—— —— —— lesions, roentgen diagnosis. Pendergrass, E. P., *et al.*, 713
—— —— colon and rectum, carcinoma. Cattell, R. B., *et al.*, 641, 801
—— —— —— —— rectum, carcinoma. Miller, G., 725
—— —— —— —— rectum carcinoma. Phillips, R. B., *et al.*, 725
—— —— —— —— rectum carcinoma. Trasoff, A., *et al.*, 642
—— —— —— —— rectum, carcinoma, Charity Hospital of Louisiana. Romano, S. A., *et al.*, 642
—— —— —— —— rectum carcinoma, early symptoms. Abell, I., Jr., 801
—— —— —— malignant rectum lesions, operability. Gregg, R. O., *et al.*, 723
—— —— —— —— rectum, surgery. Garlock, J. H., *et al.*, 424
—— —— leiomyoma. Good, C. A., 641
—— —— multiple adenomatosis. Pickworth, M. E., 424
—— —— polyps, relation to carcinoma. Jackman, R. J., 641
—— —— proximal ascending, lesions, roentgen diagnosis. Pendergrass, E. P., 713
—— —— right side, carcinoma, end-to-end ileocolostomy in resection. Mayo, C. W., *et al.*, 724
—— —— —— —— malignant lesions. Mayo, C. W., 724
—— —— rectum, carcinoid tumors derived from Erspamer's pre-enterochrome cells. Stout, A. P., 642
—— —— —— carcinoma. Johns, F. S., 724
—— —— —— carcinoma Bowing, H. H., *et al.*, 640
—— —— —— —— Cave, H. C., 72
—— —— —— —— Gilchrist, R. K., 802
—— —— —— —— Jelks, J. L., 724
—— —— —— —— Nesselrod, J. P., *et al.*, 725
—— —— —— —— Rosser, C., 802
—— —— —— —— Silvers, H. I., 726
—— —— —— —— Womack, N. A., 643
—— —— —— —— and pregnancy. Mayo, C. W., *et al.*, 724
—— —— —— —— contraindications for radical operation. David, V. C., *et al.*, 722
—— —— —— —— electrosurgery. Roffo, A. H., *et al.*, 725
—— —— —— —— examination. Shearburn, E. W., 214
Intestine, large, rectum, carcinoma metastases to humerus. Weston, S., 214
—— —— —— —— operability. David, V. C., *et al.*, 280
—— —— —— lymphoid tumors resembling internal hemorrhoids. Smith, T. E., 424
—— —— —— lymphosarcoma. Tuta, J. A., *et al.*, 214
—— —— —— malignant melanoma. Goldman, C., *et al.*, 214
—— —— —— one-stage radical resection, modified Lloyd-Davies technic. Laufman, H., *et al.*, 642
—— —— —— rectosigmoid, and sigmoid, malignant tumors, abdominoperineal resection. Mayo, C. W., 724
—— —— —— tumors. Smiley, K. E., 642
—— —— sigmoid carcinoma, resection. Mayo, C. W., *et al.*, 724
—— —— —— rectosigmoid, and rectum, malignant tumors, abdominoperineal resection. Mayo, C. W., 724
—— lymphosarcoma in child. Charache, H., 641
—— obstruction, phase of cervical carcinoma. Pearson, B., *et al.*, 638
Intestine small, argentaffin tumors, roentgen sign of cancer. Miller, E. R., *et al.*, 635
—— —— duodenum, adenomatosis. Wolfer, J. A., 726
—— —— —— and head of pancreas, excision for carcinoma of ampulla, method of anastomosing pancreatic duct to jejunum. Phillips, J. R., 642
—— —— —— carcinoma, clinical and roentgen manifestations. Ritvo, M., 72
—— —— —— —— papillary. Tremor, V. F., 726
—— —— —— —— preoperative diagnosis. Hartzell, H. V., 634
—— —— —— Hodgkin's disease. Pusch, L. C., 802
—— —— —— periampullary portion, and ampulla of Vata, carcinoma, surgery. Hunt, V. C., 724
—— —— —— prolapse of polypoid gastric mucosa into, with malignant change. Rubin, J. S., 214
—— —— —— ulcer, and gastric ulcer and carcinoma, chronic gastritis. Hebbel, R., 641
—— —— ileum, hemangioma. Christopher, F., 280
—— —— ——lesions, roentgen diagnosis. Pendergrass, E. P., *et al.*, 713
—— —— —— metastatic melanotic sarcoma causing intussusception. Phillips, J. R., 642
—— —— —— multiple argentaffinomas, with metastasis in lymph nodes and liver. Gold, I. R., *et al.*, 641
—— —— —— obstructive carcinoid. Dangremond, G., 280
—— —— jejunum, carcinoma. Kahn, M., *et al.*, 214
—— —— —— —— Karras, R. W., 724
—— —— leiomyoma. Patterson, D. C., *et al.*, 725
—— —— malignant tumors, x-ray diagnosis. Swenson, P. C., 788
—— —— mesentery, benign tumors. Mills, W. M., 647
—— —— —— lipoma, in child. Bass, M. H., 888
—— —— solitary neurogenic sarcoma. Shapiro, M. J., *et al.*, 717
—— —— perforation, and peritonitis, carcinoma of tail of pancreas. Tollman, J. P., 646
—— —— sarcoma. Frank, L. W., *et al.*, 802
—— —— tumors, roentgenologic manifestations. Weber, H. M., *et al.*, 419
Iodine, radioactive, storage in metastasis from thyroid carcinoma. Keston, A. S., *et al.*, 344
—— —— therapy in leukemia. Low-Beer, B. V. A., *et al.*, 635
Iron and ascorbic acid, epidermal, influence of limited methylcholanthrene application. Carruthers, C., *et al.*, 555
Irritation, multiple, carcinogenesis after. Lauridsen, J., and Eggers, H. E., *43, 140
Islet cell carcinoma, metastases to liver. Gray, L. M., 646

Jackman, R. J., 641
Jackson, H., Jr., 567
Jackson, H. G. *See* Wallace, W. S., 640
Jacobs, M. B. *See* O'Donoghue, J. B., 347
Jaegar, J. R., *et al.*, 420
Jaffe, H. L., *et al.*, 280, 643
Jankelson, I. R., *et al.*, 641

Jaundice, obstructive, due to carcinoma of pancreas. Sallick, M. A., *et al.,* 806
Jaw carcinoma. Erich, J. B., 804
Jejunum. *See* Intestine, small
Jelks, J. L., 724
Jelsma, F., 788
Jenkinson, E. L., *et al.,* 345
Jennings, W. K. *See* Nesselrod, J. P., 725
Jensen, A. F., 717
Jensik, R. J., 719
Jobe, M. C., 349
Johns, F. S., 724
Johnson, A. S., *et al.,* 568
Johnson, H. R., 789
Johnston, H. W., 719
Jonas, A. F. *See* Firor, W. M., 723
Jones, A. C., 799
Jones, E. E. The effect of 2,7-dihydroxynaphthalene on tumor incidence and growth of the mammary gland in mice of the line A albino and C3H strains, *168, 275
Jones, H. C. *See* Doub, H. P., 639
Jones, H. O., *et al.,* 791
Jones, H. W., 491
—— *See* Miller, F. R., 629
Jones, R. N., and Creech, H. J. The spectrographic analysis of carcinogenic hydrocarbons and conjugated proteins, **134
—— *See* Creech, H. J., **133
de Jong, J. J., 144
Judd, E. S., Jr., 214

Kabat, E. A. *See* Landow, H., 630
Kahle, P. J., *et al.,* 213, 795
—— *See* Schenken, J. R., 213
Kahler, H., *et al.,* 210, 709
—— *See* Bryan, W. R., 341
—— *See* Robertson, W. van B., **133, 340
Kahn, D. *See* Becker, S. W., 349
Kahn, M., *et al.,* 214
Kanfer, A., 787
Kansas, cancer data, 648
Kanter, A. E., *et al.,* 791
Kaplan, A. *See* Cohen, I., 636
Kaplan, I. I., 491, 634, 788
Kaplan, J. H. *See* Magnelia, A. L., 878
Kaposi's sarcoma. Aergerter, E. E., *et al.,* 647
—— —— eyelid. Graham, T. N., 717
Karras, R. W., 724
Kates, S. R., 728
Katz, J. D. *See* Markowitz, I., 720
Kay, E. B., 724
—— *See* Coller, F. A., 722, 801
Kearns, W. M., 795
Keating, F. R., Jr., *et al.,* 348
Keettel, W. C., 808
Keith, D. Y., 719
Kelly, A. S. *See* Rottino, A., 718
Kennaway, E. L. *See* Badger, G. M., 413
Kennaway, Mrs. N. M. *See* Badger, G. M., 413
Kennedy, R. H., 721, 727
Kenney, J. F., 728
Kenney, J. M. The relation of radioactive phosphorus to the treatment of malignant neoplasms, **133
—— *et al.,* 71, 634
—— *See* Woodard, H. Q., 142
Kensler, C. J., and Rhoads, C. P. The inhibition of liver oxidatives by split products of *p*-dimethylaminoazobenzene, **134
—— **Wadsworth, C., Sugiura, K., Rhoads, C. P., Dittmer, K., and du Vigneaud, V.** The influence of egg white and avidin feeding on tumor growth, *823, 880
—— *See* Burk, D., **130
—— *See* Sugiura, K., **130
Kepler, E. J. *See* Keating, F. R., Jr., 348
Keratoses and epitheliomas, human, respiration. Amersbach, J. C., *et al.,* 277
Kernohan, J. W. *See* Abbott, K. H., 715
—— *See* Craig, W. McK., 492
—— *See* Turner, O. A., 637 (2 abs)
Kerr, H. D., 634, 713
Keschner, M., *et al.,* 493
Kessler, I., 721
Keston, A. S., *et al.,* 344
17-Ketosteroid and estrogen excretion in patients with breast carcinoma. Taylor, H. C., Jr., Mecke, F. E., and Twombly, G. H., **131, *180, 276
—— excretion before and after castration for prostatic cancer. Scott, W. W., *et al.,* 631
—— —— in cancerous and noncancerous persons. Pearlman, W. H., 276
Keyes, E. L., 143
Keyser, L. D., 795
Khanolkar, V. R. *See* Chitre, R. G., *88, 209
Kidd, J. G., 556
—— *See* Parsons, R. J., 786
Kidney adenocarcinoma, metastatic. Lane, C., 797
—— —— with brain metastasis. Musa, A. B., *et al.,* 797
—— adrenal rests. Mitchell, N., *et al.,* 423
—— and blood catalase activity of tumor-bearing animals. Greenstein, J. P., *et al.,* 339
—— —— ureter, influence of retroperitoneal tumors. Sweetser, T. H., 349
—— —— vesical neoplasms. Schulte, T. L., *et al.,* 646
—— angioendothelioma. Prince, C. L., 346
—— angioma. Riley, A., *et al.,* 797
—— carcinoma and pregnancy. Vitt, A. E., *et al.,* 565
—— —— bilateral, Beilin, L. M., *et al.,* 565
—— —— metastasis to heart and thyroid. Dublin, W. B., 797
—— cell carcinoma, association with papilloma of renal pelvis. Dick, V. S., 346
—— cortical, neoplasms. LeComte, R. M., 797
—— ectopia, crossed, carcinoma. Langworthy, H. T., *et al.,* 346
—— frog, carcinoma, transplanted into tadpole tails, growth and regression. Briggs, R., and Grant, R., *613, 710
—— hemangioma. McLean, E. H., *et al.,* 797
—— hypernephroma, solitary metastasis to cerebellum. Edelman, L., 885
—— lipofibrosarcoma. Pearse, R., 797
—— metastatic malignant tumors. Abeshouse, B. S., *et al.,* 796
—— myelocytoma. Kretschmer, W. H. L., 565
—— neurofibroma. Saphir, O., *et al.,* 797
—— pelvis and ureter, carcinoma. Bothe, A. E., 422
—— right, papillary carcinoma. Fowler, H. A., 565
—— sarcoma. Davidson, B., 797
—— tumor, malignant papillary cystadenoma and papillary carcinoma with clear cells. Foulds, G. S., 346
—— —— mixed, capsular and subcapsular, called capsuloma. Colvin, S. H., Jr., 565
Kiefer, J. H., 346
Kierland, R. R., *et al.,* 805
Kilgore, A. R., 562
Kimball, T. S., *et al.,* 563
King, D. S., *et al.,* 640
King, H. D. *See* Aptekman, P. M., *856, 877
Kingry, C. B. *See* Jaegar, J. R., 420
Kinney, K. K., 805
Kirby, A. H. M., *515, 627
Kirby-Smith, J. S., Blum, H. F., and Grady, H. G. Penetration of skin by ultraviolet radiation as a factor in carcinogenesis, **128, 208
—— *See* Blum, H. F., **128, 557, 558
—— *See* Grady, H. G., **128, 558
Kirklin, B. R., *et al.,* 71, 424
—— *See* Weber, H. M., 419, 714
Kirkman, J. H., 727
Kirsch, I. E., 727
Kirschbaum, A., *et al.,* 560
Kirschbaum, W. R., 788
Kirtz, L. P., *et al.,* 345, 808

Kirtz, M. M. *See* Loeb, L., 70
Kirwin, T. J., 422
Kiskadden, W. S., 424
Klawans, A. H., 805
Kleinsasser, L. R. J. *See* Echols, D. H., 643
Kline, B. E. The effect of *p*-dimethylaminoazobenzene on the formation of blood proteins, *117, 209
—— **and Rusch, H. P.** Tumor inhibitor studies. II. The effect of plant hormones on tumor growth, *702, 785
—— —— **Baumann, C. A., and Lavik, P. S.** The effect of pyridoxin on tumor growth, *825, 880
—— *See* Bain, J. A., *610, 708
—— *See* Baker, A. K., 627
—— *See* Rusch, H. P., **128
Klotz, S. *See* McGavack, T. H., 645
Klotz, S. D. *See* Upham, R., *et al.,* 803
Knee, cystic myxomatous tumors, relation to cysts of menisci. Ghromley, R. K., *et al.,* 643
—— joint xanthoma. O'Donoghue, D. H., 347
Kobrin, M. *See* Tittler, I. A., 488
Koch, F. C. *See* Steiner, P. E., *100, 207
Koenig, E. C. *See* Culver, G. J., 645
Kohler, H. H. *See* Wear, J. B., 798
Kohn-Speyer, A. C. *See* Plaut, A., *176, 278
Koller, P. C., 631
Koop, C. E. *See* Martin, H., 344
Kopac, M. J., Cameron, G., and Chambers, R. Neoplasm studies. X. The effects in tissue culture of some split products of *p*-dimethylaminoazobenzene on rat liver tumors, *290, 413
—— *See* Cameron, G., *281, 413
—— *See* Chambers, R., *293, 414
Koucky, J. D., *et al.,* 642, 724
Kowles, J. J. *See* Tamis, A. B., 793
Krakower, C. *See* Engle, E. T., *858, 878
Kramer, R., 885
Kreig, J. *See* Tollman, J. P., 646
Kretschmer, H. L., 565
—— *See* Heckel, N. J., 212
Kreutzmann, H. A. R., 423
Krock, F., *et al.,* 719
Krukenberg's tumors. Leffel, J. M., Jr., *et al.,* 792
Krumbhaar, E. B., *et al.,* 347
Kuhlenbeck, H. *See* Globus, J. H., 420
Kurzrok, L., *et al.,* 645
Kushner, J. I., 805
—— *See* Smiley, I., 792
Kuzma, J. F., 637

Labium majus, myoblastoma. Tamis, A. B., *et al.,* 793
Lahey, F. H., *et al.,* 642, 802
Lain, E. S. *See* Lamb, J. H.
Lamb, A. J. *See* McCall, J. W., 799
Lamb, J. H., *et al.,* 420
Lampe, I., 639
Landow, H., *et al.,* 630
Lane, C., 797
Langworthy, H. T., *et al.,* 346
Lard, heated, hepatic and gastric lesions after feeding. Lippincott, S. W., Morris, H. P., and Larsen, C. D., **128
Larkin, J. C., Jr. *See* Stone, R. S., 636
LaRosa, F. J. *See* Howes, W. E., 143
Larsen, C. D. *See* Lippincott, S. W., **128
Larynx and hypopharynx, malignant disease, suspension laryngoscopy. New, G. B., *et al.,* 800
—— carcinoma. Equen, M., *et al.,* 639
—— —— Gill, E. G., 799
—— —— Hammond, A. E., 799
—— —— Jones, A. C., 799
—— —— McCall, J. W., *et al.,* 799
—— —— at Institute of Experimental Medicine, Buenos Aires. Roffo, A. H., *et al.,* 800
—— —— hoarseness. Clerf, L. H., 798
—— —— panlaryngectomy. Brunschwig, A., 639
—— —— with tracheal cancer at site of treatment. Watson, W. L., 423
Larynx chondroma. Holinger, P. H., *et al.,* 709
—— —— laryngofissure. Gatewood, E. T., 799
—— lesions. Bumgardner, J. S., 798
—— tumors. Fletcher, G. W., 798
Lash, A. F. *See* Barrett, C. W., 790
LaSnitzki, A., *et al.,* 337
Laszlo, D., *et al.,* 627
—— **and Leuchtenberger, C.** A rapid test for tumor growth inhibitors, *401, 490
—— *See* Lewisohn, R., 879, 880
La Towsky, L. W. *See* Hughes, P. B., 568
Laufman, H., *et al.,* 642
Lauridsen, J., and Eggers, H. E. Carcinogenesis after multiple irritation, *43, 140
Lavik, P. S., and Baumann, C. A. Further studies on the tumor-promoting action of fat, *749, 879
—— *See* Kline, B. E., *825, 880
Law, L. W. Further observations on the effect of foster nursing on the growth of transplantable leukemias in mice, **125
—— *See* Woolley, G. W., **122
Lawrence, E. A. *See* Oughterson, A. W., 208
Lawrence, J. H., 805
—— *See* Low-Beer, B. V. A., 635
—— *See* Newell, R. R., 644
—— *See* Treadwell, A. deG., 344
Lazarus, J. A., *et al.,* 804
Lead, commercial, possible incitor of bronchiogenic carcinoma. Black, C. E., 493
Lebowich, R. J., *et al.,* 638
LeCompte, R. M., 797
Leddy, E. T., 492
—— *See* MacCarty, W. C., Jr., 635
Lederer, F. L., 789
Lederer, M., *et al.,* 568
—— *See* Rosenblatt, P., 422
Lederman, M. *See* Mill, W. A., 800
Ledlie, R. C. B., *et al.,* 726, 805
Lee, E. S., 565
Leffel, J. M., Jr., *et al.,* 792
Lehman, E. P. *See* Burger, R. E., 144
Leiomyoma, colon. Good, C. A., 641
—— malignum, stomach. Christopher, F., *et al.,* 641
—— perforated, of Meckel's diverticulum. Koucky, J. D., *et al.,* 642
—— roentgenological appearance. Editorial, 803
—— small intestine. Patterson, D. C., *et al.,* 725
—— stomach. Bloom, N., *et al.,* 722
—— uterus, mitotic activity. Hartz, P. H., *et al.,* 421
Leiomyosarcoma, ulcerated, hemorrhagic, stomach, partial gastrectomy, White, R. R., *et al.,* 726
—— uterus. Simon, H. J., 792
—— —— and papillary carcinoma of ovary, simultaneous. Major, J. W., 418
—— —— associated with ramifying angiomyoma. Gnassi, A. M., *et al.,* 808
Leiter, H. E. *See* Hyman, A., 885
Leiter, J., *et al.,* 554 (2 abs), 706
—— **and Shear, M. J.** Production of subcutaneous tumors in mice with air dust tar, **123, 554
Lemmer, K. E., 724
Lenz, M., 419
Letendre, P. *See* Schindler, R., 214
Leuchtenberger, C. *See* Laszlo, D., *401, 490, 627
—— *See* Lewisohn, R., 879, 880
Leuchtenberger, R. *See* Lewisohn, R., 879, 880
Leucutia, T., 344
Leukemia. Lawrence, J. H., 805
—— agranulocytosis. Jackson, H., Jr., 567
—— aleukemic. Fisher, H. R., 566
—— —— lymphatic. Matheson, A., 805
—— —— paramyeloblastic. Evensen, O. K., *et al.,* 347
—— and lymphoblastoma. Newell, R. R., *et al.,* 644
—— —— lymphosarcoma, including chloromas. Griffin, L. L., *et al.,* 644
—— —— milk influence. Kirschbaum, A., *et al.,* 560

Leukemia and sclerotic lesions, methylcholanthrene dosage producing, in mice on restricted cystine diet. White, J., *et al.*, 707
—— chronic. Pascucci, L. M., 645
—— clinical aspects. Reed, E. B., 215
—— distribution of doses of radioactive phosphorus. Warren, S., *334, 415
—— genitourinary tract. Meyer, L. M., 805
—— induced and spontaneous, metabolism. Burk, D., *et al.*, 560
—— —— by methylcholanthrene and x-rays. McEndy, D. P., *et al.*, 560
—— —— experimentally, relation to human disease. Opie, E. L., 806
—— —— pathogenesis. McEndy, D. P., and Furth, J., **121
—— lymphatic. Beard, M. F., 805
—— —— Brown, E. H., 805
—— —— chronic, and diabetes mellitus, insulin resistance. Levi, J. E., *et al.*, 567
—— —— spontaneous, histological changes preceding. Potter, J. S., *et al.*, 561
—— manifestations, and spinal cord degeneration, associated with multiple myeloma. Lindeboom, G. A., *et al.*, 347
—— methylcholanthrene, effect of diet on incidence. White, J., and Mider, G. B., **129
—— mouse, transmitted, chemotherapy. Flory, C. M., Furth, J., Saxton, J. A., Jr., and Reiner, L., *729, 880
—— retention of radioactive phosphorus. Warren, S., *872, 881
—— specific substances in urine. Miller, F. R., *et al.*, 629
—— spleen. Krumbhaar, E. B., *et al.*, 347
—— state preceding, metabolism of mouse tissues. Burk, D., Sprince, H., Boon, M. F., and Furth, J., **121
—— therapy, radiation, Bethell, F. H., 644
—— —— with artificially produced radioactive substances. Low-Beer, B. V. A., *et al.*, 635
—— transplantable, effect of foster nursing. Law, L. W., **125
—— —— rat, effect on resistance of sodium pentobarbital, paradichlorbenz ıe, amyl acetate, and sovasol. Murphy, Jas. B., and Sturm, E., *173, 278
—— unusual form. de Jong, J. J., 144
Leukemogenic action, methylcholanthrene, enhancement by pre-irradiation with x-rays. Furth, J., *et al.*, 881
Leukocytes, leukemic human, cultivation on chorioallantoic membrane. Pierce, M., 278
—— polymorphonuclear, and leukocytes, viability, effect of high temperature and moccasin venom. Schrek, R., 711
Leukosis, fowl, transfer to chick embryo. Pierce, M., 561
—— sarcoma agent, relation of antigen of chemically induced chicken tumor. Gottschalk, R. G., *649, 785
Lev, M. *See* Lichtenstein, B. W., 637
—— *See* Olsman, L., 644
Levin, A. E., 344
Levin, O. L., *et al.*, 279
Levinson, J. P. *See* Perrone, J. A., 279
Levitt, A., *et al.*, 424
Levy, D. S. *See* Levitt, A., 424
Lewis, M. R. *See* Aptekman, P. M., *856, 877
Lewis, W. H. Nucleolar vacuoles in living normal and malignant fibroblasts, *531, 630
—— Rhabdomyosarcoma. Rat tumor 92, Institute of Cancer Research, Columbia University, New York, *867, 882
Lewisohn, R., *et al.*, 879, 880
Lichtenstein, B. W., *et al.*, 568, 637
Lichtenstein, L. *See* Jaffe, H. L., 280, 643
Liddy, E. D. *See* Rettenmaier, A. J., 645
Lillie, H. I. *See* Pastore, P. H., 800
Lindau-von Hippel disease. Craig, W. McK., *et al.*, 492
Lindeboom, G. A., *et al.*, 347
Lingley, J. R., 71
Linitis plastica. Saphir, O., *et al.*, 424
Linn, H. J., *et al.*, 792
Lip and cheek cancer. Figi, F. A., 798
—— carcinoma. Dunne, R. E., 143
—— —— Martin, H., *et al.*, 800
—— —— Editorial, 801
Lip carcinoma radiation. Schreiner, B. F., *et al.*, 635
—— lower, carcinoma, at Brooklyn Cancer Institute. Howes, W. E., 143
—— upper, radio-resistant cancer. Bradley, E. T., 798
Lipetz, B. *See* Campbell, E., et al., 567
Lipid and protein nitrogen ratio of epidermis reduced by single methylcholanthrene application. Wicks, L. F., *et al.*, 555
Lipofibrosarcoma, kidney. Pearse, R., 797
Lipoma. Hogue, P. N., 728
—— intramuscular. Hoffmann, H. O. E., 728
—— —— thigh. Arenas, N. A. R., 804
—— intrathoracic. Swineford, O., *et al.*, 279
—— left main bronchus. Vinson, P. P., *et al.*, 722
—— mesentery, in child. Bass, M. H., 888
—— stomach, causing hemorrhage. Cattell, R. B., 641
—— thigh. Coventry, M. B., *et al.*, 647
Liposarcoma, bone. Brown, W. O., 280
Lipomyxoma, spermatic cord. Strong, G. H., 564
Lippincott, S. W., *et al.*, 339, 561, 709
—— **Morris, H. P., and Larsen, C. D.** The production of hepatic and gastric lesions in rats fed a high level of heated lard, **128
—— *See* Blum, H. F., 339, 558
—— *See* Morris, H. P., **129, 340
Lipscomb, W. R., 279
Lipschütz, A., 208
Lischer, C. E. *See* Goodof, I. I.. 647
Lisle, E. B., 207
Lisser, H. *See* Goldberg, M. B., 567
List, C. F., 644
Little, C. C. The relative incidence of cancer according to site, age, color, and sex, **126
—— *See* Spangler, J. M., 559
—— *See* Woolley, G. W., **120, **122, 632
Liver adenoma, solitary. del Pino, P., *et al.*, 727
—— and gastric lesions after heated lard feeding. Lippincott, S. W., Morris, H. P., and Larsen, C. D., **128
—— —— mammary tissues, cancerous, enzyme spectrum. Greenstein, J. P., **120
—— —— skin tumor metabolism. Dickens, F., and Weil-Malherbe, F., *73, 209
—— —— yeast fractions protecting against *p*-dimethylaminoazobenzene carcinogenicity. Sugiura, K., Kensler, C. J., and Rhoads, C. P., **130
—— bile cell fibroadenoma. Lee, E. S., 565
—— cancerous, noncancerous, cirrhotic, and Negro patients, carcinogenic factor. Steiner, P. E., **125, *385, 488
—— carcinoma, Berns, R. S., 726
—— —— Upham, R., *et al.*, 803
—— —— extracts, inducing cancer in mouse. Craciun, E. C., *et al.*, 784
—— —— in infancy. Platou, R. V., *et al.*, 727
—— —— production irradiation not inhibiting. Williams, G. Z., *et al.*, 709
—— —— —— with *p*-dimethylaminoazobenzene, glycerophosphatases. Woodard, H. Q., *159, 277
—— —— —— —— *p*-dimethylaminoazobenzene, inhibited by pyridoxin and other B vitamins. Miner, D. L., Miller, J. A., Baumann, C. A., and Rusch, H. P., *296, 416
—— catalase activity of tumor-bearing animals. Greenstein, J. P., 628
—— —— —— —— tumor-bearing mice and rats. White, J., and Andervont, H. B., **120
—— —— —— —— tumor-bearing mice, effect of regression and removal of tumors. Greenstein, J. P., 70
—— —— —— titration. Greenstein, J. P., 141
—— cell carcinoma in infancy, calcification. Tomlinson, W. J., *et al.*, 347
—— —— normal, of mice bearing methylcholanthrene tumors, tumors not produced. Dmochowski, L., *608, 707
—— cholangioma in hepatolithiasis. Sanes, S., *et al.*, 565
—— cirrhosis and hepatomas induced with carbon tetrachloride. Edwards, J. E., *et al.*, 414
—— —— malignant tumors. Peller, S., 728
—— esterase content and excretion in strains susceptible or insusceptible to mammary cancer. Chitre, R. G., and Khanolkar, V. R., *88, 209

Liver, fatty infiltration, carcinoma of pancreas and ampulla of Vater. Schnedorf, J. G., *et al.,* 728
—— feeding, influence on subcutaneous sarcoma produced by azo dye. Turner, J. C., *et al.,* 207
—— fibroma. Chifflet, A., 803
—— hemangioendothelioma, malignant, transplantable. Edwards, J. E., *et al.,* 343
—— hemangioma, large pedunculated cavernous. Morton, H. B., 347
—— hepatoma, benign. Hoffman, H. S., 565
—— —— carbon tetrachloride. Edwards, J. E., *et al.,* 487
—— —— spontaneous and induced, mitochondria and Golgi apparatus. Dalton, A. J., and Edwards, J. E., **129, 341
—— —— —— influence of breeding on incidence. Burns, E. L., and Schenken, J. R., *691, 785
—— —— —— —— of estrogens and testosterone propionate on incidence. Schenken, J. R., and Burns, E. L., *693, 785
—— —— —— intracytoplasmic inclusion bodies and mitochondria. Burns, E. L., and Schenken, J. R., *697, 785
—— —— —— transplantable. Edwards, J. E., *et al.,* 343
—— —— transplanted, creatine and creatinine content. Greenstein, J. P., 555
—— —— —— not degrading cystine. Greenstein, J. P., 709
—— hepatoma 31. White, J., *et al.,* 338
—— —— —— and normal tissues, cathepsins hydrolyzing glutathione. Maver, M. E., *et al.,* 628
—— human, carcinogenic extracts. Steiner, P. E., 707
—— lesions, hepatomas, pulmonary tumors, and hemangioendotheliomas, induced with *o*-aminoazotoluene. Andervont, H. B., *et al.,* 486
—— lungs, and bone, carcinoma. Satterlee, R. C., 648
—— metastasis, bronchial adenoma. Anderson, W. M., 639
—— —— multiple argentaffinomas in ileum. Gold, I. R., *et al.,* 641
—— muscle, and mammary tumor, riboflavin concentration. Morris, H. P., *et al.,* 710
—— neoplasm, and hemochromatosis. Saward, E. W., 566
—— normal, and hepatic tumors, hydrogen-ion concentration. Kahler, H., *et al.,* 709
—— —— —— regenerating, creatine and creatinine content. Greenstein, J. P., 555
—— —— degradation of cystine. Greenstein, J. P., 709
—— —— regenerating, and fetal, and transplanted hepatomas, enzymatic activity. Greenstein, J. P., *et al.,* 416
—— oxidatives inhibited by split products of *p*-dimethylaminoazobenzene. Kensler, C. J., and Rhoads, C. P., **134
—— tissue, normal and neoplastic, incubation of citrulline and ammonia. Greenstein, J. P., 627
—— —— —— —— tumorous, extracts before and after addition of salts, sulfhydryl groups. Greenstein, J. P., 416
—— tumor development, effect of dietary cystine after *p*-dimethylaminoazobenzene-feeding. White, J., and Edwards, J. E., **129, 340
—— —— following cirrhosis caused by selenium. Nelson, A. A., Fitzhugh, O. G., and Calvery, H. O., *230, 338
—— —— hamartoma, excision in infant. Benson, C. D., *et al.,* 726
—— —— induced by *p*-dimethylaminoazobenzene, effect of methionine or choline plus cystine on incidence. White, J., *et al.,* 417
—— —— —— —— *p*-dimethylaminoazobenzene, in tissue culture, effects of *N,N*-dimethyl-*p*-phenylenediamine. Cameron, G., Kopac, M. J., and Chambers, R., *281, 413
—— —— tissue culture, effects of split products of *p*-dimethylaminoazobenzene. Kopac, M. J., Cameron, G., and Chambers, R., *290, 413
—— vitamin A as affected by dibenzanthracene administration. Abels, J. C., *et al.,* 486
Livermore, G. R., 423
Livingston, W. H. *See* Hill, R. M., *841, 879
Lloyd-Davies technic, modified, one-stage radical resection of rectum. Laumfan, H., *et al.,* 642
Loe, R. H., 808
Loeb, L., *et al.,* 70
Lövgren, O., *et al.,* 215
Loewenstein, A., *et al.,* 717
Lomax, J., *et al.,* 792
Lombard, H. L., *et al.,* 648
—— *See* Johnson, A. S., 568
Longwell, B. B. *See* Hill, B. R., 878
Loomis, E. G. *See* Curtis, C. S., 567
Lorenz, E., *et al.,* 337
—— **Stewart, H. L., Daniel, J. H., and Nelson, C. V.** The effects of breathing tobacco smoke on strain A mice, **123
—— *See* Shimkin, M. B., 207
—— *See* Stewart, H. L., **123, 554
Louisiana Charity Hospital, carcinoma of colon and rectum. Romano, S. A., *et al.,* 642
Love, J., 787
Love, J. G., 716, 718
Lovelady, S. B., *et al.,* 792
—— *See* McDonald, J. R., 792
Low, H. T., *et al.,* 795
Low-Beer, B. V. A., 635
—— *See* Treadwell, A. deG., 344
Lucké, B., 343
Lulenski, C. R. *See* Warren, S., 803
Lull, C. R., 792
Lung, adenoma, malignant. Adams, W. E., *et al.,* 279, 639
—— adenomatosis, bilateral, multiple. Sims, J. L., 640
—— and mediastinum, tumors. Davison, R. M., *et al.,* 279
—— —— peritoneum effusions, cells from, in tissue culture. Coman, D. R., *526, 630
—— anlages and rest tumors inclusive of mixed tumors (Womack and Graham). Harris, W. H., *et al.,* 639
—— apex tumors. Stein, J. J., 722
—— carcinoma. Bondurant, A. J., 721
—— —— Perrone, J. A., *et al.,* 279
—— —— and acanthosis nigricans. Levin, O. L., *et al.,* 279
—— —— —— pulmonary tuberculosis. Martin, A., *et al.,* 721
—— —— —— tobacco smoking. Grace, E. J., 721
—— —— at Philadelphia Naval Hospital. Fetter, F., 721
—— —— bone metastases. Muscolo, D., *et al.,* 721
—— —— bronchoscopy. Betts, R. H., 493
—— —— in infancy. Hauser, H., 640
—— —— metastatic and primary, simulating pulmonary metastases alone. Freedman, L. M. J., *et al.,* 639
—— —— —— bronchial involvement. King, D. S., *et al.,* 640
—— —— possible increase. Macklin, M. T., 349
—— developmental abnormalities, and bronchiogenic carcinoma. Womac, N. A., *et al.,* 279
—— ischemic necrosis with hilar bronchiogenic carcinoma and obturator thrombus of right pulmonary artery. Behrents, E. G., 279
—— lipoma intrathoracic. Swineford, O., *et al.,* 279
—— liver, and bone, carcinoma. Satterlee, R. C., 648
—— lobectomy and pneumonectomy. Shaw, R., 279
—— melanoma. Carlucci, G. A., *et al.,* 279
—— mesothelioma, tissue culture. Stout, A. P., *et al.,* 423
—— metastases, chorionepithelioma following tubal pregnancy. Smith, J. T., *et al.,* 793
—— —— embryonal cell carcinoma of testis, radiation. Hare, H. F., 634
—— neoplasm, benign, lobectomy. Kessler, I., 721
—— —— treated by ultra-deep roentgentherapy. Roffo, A. E., Jr., 721
—— osteoarthropathy, hypertrophic, associated with bronchiogenic giant cell tumor in left lung. Poley, P. P., *et al.,* 786
—— pneumonectomy. Berry, F. B., 721
—— tumors. Adams, W. E., 639
—— —— Campbell, J. A., 486
—— —— following intraperitoneal injection of 1,2,5,6-dibenzanthracene into young mice. Lynch, C. J., 882
—— —— genetic analysis of susceptibility. Heston, W. E., **125, 559
—— —— hepatic lesions, hepatomas, and hemangioendotheliomas, induced with *o*-aminoazobenzene. Andervont, H. B., *et al.,* 486
—— —— incidence in mixed strain of mice. Campbell, J. A., 417
—— —— induced by carcinogenic hydrocarbons. Shimkin, M. B., *et al.,* 207

Lung, tumors induced, genetic analysis of susceptibility. Heston, W. E., 559
—— —— —— susceptibility, relation to lethal yellow (*A*) gene. Heston, W. E., 560
—— —— intrathoracic. Harrington, S. W., 279
—— —— metastatic, simulating bronchiogenic carcinoma, hemoptysis. Freedlander, S. O., *et al.,* 423
—— —— mice of different susceptibility, disappearance of intravenously injected methylcholanthrene. Lorenz, E., *et al.,* 337
—— —— single and multiple. Campbell, J. A., 784
—— —— spontaneous, inheritance of susceptibility. Heston, W. E., 559
Lymph nodes, cervical, metastatic. Martin, C. L., 344
—— —— malignant, tissue culture, effects of *N,N,N′,N′*-tetramethyl-*o*-phenylenediamine and other compounds. Chambers, R., Cameron, G., and Kopac, M. J., *293, 414
—— —— metastases, epithelioma from nevus. Ponce, M. E., 715
—— —— —— multiple argentaffinomas in ileum. Gold, I. R., *et al.,* 641
—— —— —— regional, stomach carcinoma. Coller, F. A., *et al.,* 801
—— —— neck, metastatic from mouth carcinoma. Kennedy, R. H., 721
—— —— regional, dissection in carcinoma. Taylor, G. W., 633
—— —— —— pelvic, tuberculosis, in carcinoma of cervix uteri. Rivett, L. C., *et al.,* 720
—— —— spleen, and thymus, radiation effects. Warren, S., 345
Lymphadenopathy, giant follicular. Symmers, D., 348
Lymphangioma, multiple microcystic, spleen. Tomlinson, W. J., 806
Lymphatic metastases, carcinoma of colon. Coller, F. A., *et al.,* 722
—— —— —— —— gastrointestinal tract. Kay, E. B., 724
Lymphoblastoma. Goldhamer, S. M., 805
—— and leukemia. Newell, R. R., *et al.,* 644
—— gastrointestinal tract. Weber, H. M., *et al.,* 714
—— giant follicular. Held, I. W., *et al.,* 347
Lymphocytes and polymorphonuclear leukocytes, viability, effect of high temperature and moccasin venom. Schrek, R., 711
Lymphogranuloma malignum and mycosis fungoides, etiology. Lövgren, O., *et al.,* 215
—— —— pregnancy complicating. Kushner, J. I., 805
Lymphoma. Ledlie, R. C. B., *et al.,* 805
—— chromosomes in nuclear cycle, x-ray and neutron effects. Marshak, A., 631
—— gastrointestinal tract. Warren, S., *et al.,* 803
—— malignant. Gall, E. A., *et al.,* 566
—— rectum, resembling internal hemorrhoids. Smith, T. E., 424
Lymphosarcoma and Hodgkin's disease in bone. Vieta, J. O., *et al.,* 806
—— —— —— —— roentgen therapy. Desjardins, A. U., 633
—— —— leukemia, including chloromas. Griffin, L. L., *et al.,* 644
—— bladder, Kreutzmann, H. A. R., 423
—— intestine, in child. Charache, H., 641
—— lacrimal gland, with giant lymph follicle hyperplasia. Perera, C. A., 718
—— prostate and epididymis. Tenenbaum, J., 346
—— radioactive phosphorus treatment. Kenney, J. M., *et al.,* 71, 634
—— rectum. Tuta, J. A., *et al.,* 214
—— stomach. O'Donoghue, J. B., *et al.,* 347
—— —— Yarnis, H., 886
—— —— perforation. Koucky, J. D., *et al.,* 724
—— —— —— resection. Doran, W. T., *et al.,* 723
—— supravital staining technic. Hu, C. H., *et al.,* 347
—— testis. Dockerty, M. B., *et al.,* 345
Lynch, C. J., 882
Lynch, R. C., *et al.,* 724
McAfee, M. *See* Taylor, D. R., *542, 629
McAlister, L. S., 787
McCall, E. F. *See* Parsons, W. H., 562
McCall, J. W., *et al.,* 799
MacCallum, J. D. *See* Sanes, S., 565
MacCallum, W. G., 348
MacCarty, W. C., Jr., *et al.,* 635
—— *See* Kirklin, B. R., 424
MacCarty, W. C., Sr., 712, 719
McCawley, E. L. *See* DeOme, K. B., 558
—— *See* Perry, I. H., 489
—— *See* Strait, L. A., *370, 489
McClelland, R. M., 882
McClure, C. W. *See* Jankelson, I. R., 641
MacComb, W. S., *et al.,* 143
—— *See* Martin, H., 800
McCrea, L. E., 795
Macdonald, F. A. *See* Lombard, H. L., 648
Macdonald, H., 712
McDonald, E. J., *See* Ritvo, M., 728
McDonald, J. R., *et al.,* 792
—— *See* Lovelady, S. B., 792
—— *See* Uihlein, A., 726
McEndy, D. P., *et al.,* 560
—— **and Furth, J.** Studies on the pathogenesis of induced leukemia, **121
Macey, H. B., *et al.,* 644
McFarland, J., 423
Macfarlane, C., *et al.,* 808
McGavack, T. H., *et al.,* 645
McGavic, J. S., 789
McGoldrick, J. L., *et al.,* 563
McGraw, A. B. *See* Hoopes, B. F., 790
McIntyre, A. P. *See* McIntyre, H. D., 716
McIntyre, H. D., *et al.,* 716
MacIntyre, R. S. *See* Coller, F. A., 722, 801
Mackay, C. H., 795
McKee, S. H., 718
McKelvey, J. L., 719
MacKenzie, R. A., 719
McKinley, D., 790
Macklin, M. T., 349, 712
McLanahan, S. *See* Stone, H. B., 424
McLaughlin, E. F., 792
McLean, E. H., *et al.,* 797
Macnab, G. H., 637
McRea, L. E., 885
MacVicar, D. N. *See* Driver, J. R., 420
Magnelia, A. L., *et al.,* 878
Magnesium, serum, rise during hypothermia shown by spectrochemistry. Steadman, L. T., Ariel, I., and Warren, S. L., *471, 557
Maher, M. M. *See* Shapiro, N., 280
Main, R. J., 795
Maisel, A. L. *See* Herbut, P. A., 347
Major, J. W., 418
Major, R. C. *See* Sommer, G. N. J., Jr., 804
Malakoplakia, urinary bladder, and sarcoidosis. Redewill, F. H., 797
Malignant neoplastic disease. Chance, H. C., 787
Mallory, T. B. *See* Gall, E. A., 566
Mammary gland adenocarcinoma, transplanted, secretory changes initiated by pituitary lactogenic hormone. Eisen, M. J., 707
—— —— and liver tissues, cancerous, enzyme spectrum. Greenstein, J. P., **120
—— —— —— milk, mouse, fat fraction, ultraviolet spectrography. DeOme, K. B., 558
—— —— —— testicular tumor induction in mice injected with stilbestrol, effect of foster nursing. Shimken, M. B., *et al.,* 276
—— —— —— uterine cervix carcinoma, radium treatment. Ill, E. A., 419
—— —— carcinoma. Bainbridge, W. S., 884
—— —— —— Graves, S. C., 562
—— —— —— Hegner, C. F., 789

Mammary gland carcinoma. Kilgore, A. R., 562
—— —— —— Robillard, G. L., *et al.*, 562
—— —— —— Ross, D. E., 421
—— —— —— Stabins, S. J., *et al.*, 638
—— —— —— and pregnancy. Power, H. A., 790
—— —— —— and regional metastases, radiation therapy. Lenz, M., 419
—— —— —— axillary metastases. Warren, S., *et al.*, 562
—— —— —— bilateral, metastasis to eye. Jensen, A. F., 717
—— —— —— —— multiple occurrences in family. Wood, D. A., and Darling, H. H., *509, 633
—— —— —— effect of mouse weight on development. Loeb, L., 70
—— —— —— irradiation and surgery, 715
—— —— —— esterase excretion of susceptible or insusceptible mice. Chitre, R. G., and Khanolkar, V. R., *88, 209
—— —— —— estrogen and 17-ketosteroid excretion in patients. Taylor, H. C., Jr., Mecke, F. E., and Twombly, G. H., **131, *180, 276
—— —— —— estrogen-induced, spectrochemistry. Strait, L. A., McCawley, E. L., and Perry, I. H., *370, 489
—— —— —— —— spectrochemistry, distribution of triphenylethylene. Perry, I. H., Strait, L. A., and McCawley, E. L., *378, 489
—— —— —— fostered and unfostered female mice and their hybrids. Bittner, J. J., *441, 559
—— —— —— growth rate and number, influenced by dietary riboflavin, Morris, H. P., *et al.*, 710
—— —— —— human, polytene chromosomes. Biesele, J. J., and Poyner, H., *779, 882
—— —— —— incidence and ovarian function, mouse, influence of caloric restriction. Ball, Z. B., Huseby, R. A., and Visscher, M. B., **131
—— —— —— —— control. Murray, W. S., **125
—— —— —— —— influence of material from whole blood. Woolley, G. W., Law, L. W., and Little, C. C., **122
—— —— —— inoperable, ulcerating, roentgen treatment. MacCarty, W. C., Jr., *et al.*, 635
—— —— —— male, effect of orchiectomy on skeletal metastases. Farrow, J. H., 562
—— —— —— mastectomy. Marshall, S. F., 790
—— —— —— mice, treated with pearled barley. Lewisohn, R., *et al.*, 880
—— —— —— operable, inadequacy of simple mastectomy. Bransfield, J. W., *et al.*, 345
—— —— —— preoperative irradiation. Soiland, A., 419
—— —— —— radiation. O'Brien, F. W., 419
—— —— —— —— and surgery. Adair, F. E., 421
—— —— —— —— in State of Wisconsin General Hospital. Pohle, E. A., 72
—— —— —— spontaneous, in mice, deterrent effect of light on incidence. Apperly, F. L., *et al.*, 208
—— —— —— —— increase caused by riboflavin. Morris, H. P., Lippincott, S. W., and Robertson, W. van B., **129
—— —— —— —— influence of caloric restriction upon incidence. Visscher, M. B., *et al.*, 627
—— —— —— urinary steroids. Hill, B. R., *et al.*, 878
—— —— —— widespread metastases. Howes, W. E., *et al.*, 419
—— —— cystic diseases. Davis, H. H., 637
—— —— fibroadenoma, high incidence in rat strain, anterior hypophyses and ovaries. Wolfe, J. M., and Wright, A. W., *497, 631
—— —— growth and tumor incidence affected by 2,7-dihydroxynaphthalene. Jones, E. E., 275
—— —— Halsted radical mastectomy. Hoopes, B. F., *et al.*, 790
—— —— irradiation. Cohn, L. C., 789
—— —— lesions, macro- and microdiagnosis of cancer. Dawson, E. K., *et al.*, 345
—— —— —— malignant, produced by estrogens. Parsons, W. H., 562
—— —— male, benign tumors. Word, B., *et al.*, 421
—— —— —— proliferative mastitis in stilbestrol workers. Scarff, R. W., *et al.*, 421
—— —— myoepithelial proliferations, Kuzma, J. F., 637
Mammary gland pathology. Budd, J. W., 421
—— —— region, metastasis from iliac bone of spontaneous chondrosarcoma of guinea pigs. Olcott, C. T., and Papanicolaou, G. N., *321, 418
—— —— sarcoma. Hill, R. P., *et al.*, 789
—— —— —— surgery at Huntington Memorial Hospital. Simmons, C. C., 562
—— —— tumor. Bell, E. T., 637
—— —— —— benign, effects of estrogen, testosterone, and progesterone. Heiman, J., *65, 141
—— —— —— classification. Foot, N. C., 345
—— —— —— inciter, extraction and ultracentrifugation. Bryan, W. R., *et al.*, 341
—— —— —— inciter, mice. Andervont, H. B., *et al.*, 559
—— —— —— irradiation therapy. Tyler, A. F., 72
—— —— —— metastatic. Charache, H., 789
—— —— —— milk influence. Bittner, J. J., 340
—— —— —— occurrence, influence of hybridization. Andervont, H. B., 708
—— —— —— production, effect of diet low in cystine. White, J., *et al.*, 710
—— —— —— spontaneous, effect of low-cystine diet. White, J., and Andervont, H. B., **129
—— —— —— stilbestrol. Biden, W. M., 884
Mandeville, F. B., 788
Mandl, F. *See* Zondek, B., *198, 278
Mann, L. S., and Welker, W. H. Further studies of specific precipitin antiserums for the protein of cancer tissue. I, *193, 278
—— **and** —— Further studies of specific precipitin antiserums for the protein of cancer tissue. II. The application of *in vivo* absorption, *196, 278
Manolescu-Motoc, F. *See* Cracium, E. C., 784
Marinelli, L. D., *et al.*, 631
—— *See* Kenney, J. M., 71
Markham, M. J., 795
Markowitz, I., *et al.*, 720
Marks, M. S. *See* Lazarus, J. A., 804
Marquardt, C. R., *et al.*, 795 (2 abs)
Marshak, A. Comparison of x-ray and neutron effects on different stages of mitosis, **127
—— 558, 631
Marshall, S. F., 790
Marshall, V. F., 564
Martin, A., 721
Martin, C. L., 344
Martin, H., *et al.*, 344, 718, 721, 799, 800
—— *See* Ehrlich, H. E., 637
—— *See* MacComb, W. S., 143
Martin, J., *et al.*, 637
Martin, R. H. *See* Badger, G. M., 413
Marwil, T. B., *et al.*, 563
Marx, R., *et al.*, 878
Masciottra, R. L. *See* del Pino, P., 727
Maseritz, I. H., 279
Masson, J. C. *See* Leffel, J. M., Jr., 792
Mastitis, chronic, and carcinoma. McKinley, D., 790
—— proliferative, in male stilbestrol workers. Scarff, R. W., *et al.*, 231
Mathé, C. P., *et al.*, 418
Matheson, A., 805
Mathews, T. J. *See* McLean, E. H., 797
Matthews, A. R. K. *See* Wade, J. L., 807
Matthews, W. B. *See* Equen, M., 639
Mattson, H., 726
Matzkin, L. L. *See* Holinger, P. H., 799
Maurer, L. E., *et al.*, 637
Maver, M. E., *et al.*, 628
Max, P. F. *See* Paletta, F. X., 276
Maxfield, J. R., 215, 720
Maxillary antrum carcinoma, radium and surgery. Mill, W. A., *et al.*, 800
Maybaum, J. L. *See* Druss, J. G., 789
Maynard, M. T.-R., 562
Mayneord, W. V., *et al.*, 883
Mayo, C. W., *et al.*, 724 (5 abs), 725
—— *See* Dockerty, M. B., 647
—— *See* Pearman, R. O., 887

Mayo, L. E., 721
Meadows, S. P., 637 (2 abs)
Meats, overcooked, possible carcinogenicity. Steiner, P. E., Steele, R., and Koch, F. C., *100, 207
Mecke, F. E. *See* Taylor, H. C., Jr., *180, 276
Meckel's diverticulum, adenocarcinoma. Albright, H. L., *et al.,* 640
—— —— perforated leiomyoma. Koucky, J. D., *et al.,* 642
Mediastinum and lung tumors. Davison, R. M., *et al.,* 279
—— anterior, pulsating tumors. Horsley, J. S., 279
—— dermoid tumors. Dorsey, J. M., 279
—— neuroblastoma with pheochromoblastomatous elements. Wahl, H. R., *et al.,* 640
—— neurogenic tumors. Schaffner, V. D., *et al.,* 640
—— sympathogonioma. Sailer, S., 640
Medulloblastoma, human, resemblance of cerebral tumor in dog. Neubuerger, K. T., and Davis, C. L., *243, 343
—— spinal metastasis. Abbott, K. H., *et al.,* 715
Meigs' syndrome, association of hydrothorax with ovarian fibroma. Herrick, W. W., *et al.,* 563
Melanoepithelioma (melanosarcoma, melanocarcinoma, malignant melanoma) of extremities. Bickel, W. H., *et al.,* 561
Melanoma, Brooklyn Cancer Institute. Howes, W. E., *et al.,* 568
—— choroid. Rones, B., 789
—— —— and ciliary body. Callender, G. R., *et al.,* 789
—— cutaneous. Driver, J. R., *et al.,* 420
—— internal ear. Lederer, F. L., 789
—— lung. Carlucci, G. A., *et al.,* 279
—— malignant. Rulison, R. H., 211
—— —— choroid. Harlowe, H. D., 717
—— —— iris. McKee, S. H., 718
—— —— nevocarcinoma. Wigley, J. E. M., 715
—— —— nose. Kaplan, I. I., 788
—— —— rectum. Goldman, C., *et al.,* 214
—— orbital. Rottino, A., *et al.,* 718
—— transplantable, genetics of susceptibility. Spangler, J. M., *et al.,* 559
Melick, W. F. *See* Vitt, A. E., 565
Melicow, M. M., *et al.,* 795
Melroy, M. B. *See* Spencer, R. B., **129, 415
Meltzer, T. *See* Globus, J. H., 493
Mena Brito, M. A., 796
Mencher, W. H. *See* Hyman, A., 887
Meningioma, cerebrum, with alveolar and reticulin-forming cells. Tuthill, C. R., *et al.,* 717
—— chondroblastic. Siris, J. H., *et al.,* 345
—— classification. Courville, C. B., *et al.,* 716
—— in region of sphenoid ridge causing exophthalmos. Barens, S. N., 715
—— intraspinal. Brown, M. H., 492
—— intraventricular. Abbott, K. H., *et al.,* 715
—— malignant. Turner, O. A., 637
—— meningotheliomatous, cortical calcification. Lichtenstein, B. W., *et al.,* 637
—— multiple, intracranial. Echols, D. H., 492
—— osteochondroblastic, left cerebellar hemisphere. Freiman, I. S., *et al.,* 716
—— paragittal, degenerative lesions of brain simulating effects of. Courville, C. B., 716
—— spinal cord. Buchstein, H. F., 715
Meniscus, cysts, relation to cystic myxomatous tumors about knee. Ghormley, R. K., *et al.,* 643
Meredith, J. M. *See* Tuthill, C. R., 717
Merscheimer, W. L. *See* Herrlin, J., Jr., 568
Mesentery. *See* Intestine, small
Mesonephroma, or teratoid cystadenoma, ovary. Stromme, W. B., *et al.,* 564
—— ovary. Jensik, R. J., 719
Mesothelioma, peritoneum. Ramsey, T. L., *et al.,* 568
—— pleural, tissue culture. Stout, A. P., *et al.,* 423
—— uterine and tubal serosa and tunica vaginalis testis. Evans, N., 647
Metabolism and permeability, embryonic and malignant cells in culture. Cohn, W. E., and Brues, A. M., **135
—— 1,2-benzanthracene, absorption spectra. Berenblum, I., and Schoental, R., *686, 784
Metabolism, bone marrow, relation to tumor metabolism. Warren, C. O., *621, 710
—— estrogens. Dorfman, R. I., and Rish, W. R., **120
—— gastrointestinal cancer patients. Abels, J. C., Pack, G. T., and Rhoads, C. P., *177, 277
—— induced and spontaneous leukemias. Burk, D., *et al.,* 560
—— mouse tissues, in preleukemic state. Burk, D., Sprince, H., Boon, M. F., and Furth, J., **121
—— nucleic acid, disturbance produced by therapeutic doses of x- and gamma-radiation. Mitchell, J. S., 415 (3 abs)
—— —— —— relation to growth. Brues, A. M., Tracy, M. M., and Cohn, W. E., **136
—— studied in bone neoplasm with aid of radioactive strontium. Treadwell, A. deG., *et al.,* 344
—— tumors of liver and skin, and normal tissue. Dickens, F., and Weil-Malherbe, H., *73, 209
—— Yale carcinoma 1. Belkin, M., and Stern, K. G., *164, 277
Metaplasia and carcinoma in cervical polyps. Mezer, J., 211
Methionine or choline plus cystine, effect on incidence of *p*-dimethylaminoazobenzene hepatic tumors. White, J., *et al.,* 417
Methylcholanthrene, action on epidermis, chemical studies. Carruthers, C., and Suntzeff, V., *744, 877
—— and cholesterol, tumors following various exposures. Andervont, H. B., 70
—— —— x-rays inducing leukemia. McEndy, D. P., *et al.,* 560
—— carcinogenesis, epidermal, influence of estradiol benzoate. Paletta, F. X., *et al.,* 276
—— —— epidermal, mitotic frequency. Cooper, Z. K., 70
—— —— —— colchicine influence. Paletta, F. X., *et al.,* 210
—— —— —— osteosis cutis. Stowell, R. E., *et al.,* 338
—— —— —— quantitative evaluation. Cramer, W., and Stowell, R. E., *668, 784
—— effect on epidermal sodium and calcium. Suntzeff, V., *et al.,* 555
—— failure to accelerate papilloma-to-cancer sequence in virus-induced papillomas on cottontails. Syverton, J. T., Wells, E. B., and Berry, G. P., **124
—— feeding inducing intestinal adenocarcinoma and intra-abdominal hemangioendothelioma. White, J., *et al.,* 554
—— fibrosarcoma, effects of lowered body temperatures. Hill, R. M., Rutledge, E. K., Ware, A. G., Schultz, F. H., and Livingston, W. H., *841, 879
—— induction of remote gastric lesions. Strong, L. C., Collins, V. J., and Durand, E. A., *21, 141
—— intravenously injected, disappearance in mice of different susceptibility to pulmonary tumors. Lorenz, E., *et al.,* 337
—— leukemia, effect of diet. White, J., and Mider, G. B., **129
—— leukemogenic action, enhancement by pre-irradiation with x-rays. Furth, J., *et al.,* 881
—— limited application, influence on epidermal iron and ascorbic acid. Carruthers, C., *et al.,* 555
—— producing leukemia and sclerotic lesions in mice on restricted cystine diet. White, J., *et al.,* 707
—— single application reducing lipid-protein nitrogen ratio of epidermis. Wicks, L. F., *et al.,* 555
—— tumors in inbred mice. Burdette, W. J., and Strong, L. C., *13, 141
—— —— —— mice, normal liver cells not producing tumors. Dmochowski, L., *608, 707
—— —— —— in progeny of C3H and JK mice. Burdette, W. J., *318, 415
—— —— subcutaneous, effect of climate on genesis and growth. Wallace, E. W., 556
20-Methylcholanthrene carcinogenesis, skin. Cramer, W., and Stowell, R. E., **123, 206 (2 abs)
—— —— —— single application. Cramer, W., and Stowell, R. E., *36, 140
—— —— —— single application. Simpson, W, L., and Cramer, W., *604, 706
—— inducing adenocarcinoma of glandular stomach. Stewart, H. L., and Lorenz, E., **123
—— —— changes in strain of fibroblasts. Earle, W. R., 710

20-Methylcholanthrene localization in skin after single application, fluorescence studies. Simpson, W. L., and Cramer, W., *362, 487
—— treated fibroblasts, morphology of derived sarcomas. Nettleship, A., 711
Meyer, H. W., 725
Meyer, K. A., *et al.,* 349
Meyer, L. M., 805
Meyerding, H. W., 727
—— *See* Bickel, W. H., 561
—— *See* Dockerty, M. B., 280
Mezer, J., 211
Michaels, G. *See* Sundstroem, E. S., 494
Mider, G. B. *See* White, J., **129, 707
Milford, J. J., and Duran-Reynals, F. Growth of a chicken sarcoma virus in the chick embryo in the absence of neoplasia, *578, 707
Milk and mammary glands, mouse, fat fraction, ultraviolet spectrography. DeOme, K. B., *et al.,* 558
—— influence and leukemia. Kirschbaum, A., *et al.,* 560
—— —— of breast tumors. Bittner, J. J., 340
Milking apparatus, mice. Kahler, H., 210
Mill, W. A., *et al.,* 800
Miller, A. V. *See* Frank, L. W., 802
Miller, B. *See* Musa, A. B., 797
Miller, D. S. *See* Conley, A. H., 347
Miller, E. R., *et al.,* 635
Miller, F. R., *et al.,* 629
Miller, G., 725
Miller, J. A., *et al.,* 877
—— **and Baumann, C. A.** Factors that alter the fluorescence of certain carcinogens, *223, 337
—— **and** —— The determination of carcinogenic hydrocarbons in animal tissue. Two-condition fluorometry, *849, 877
—— **and** —— The effect of naphthacene on the fluorescence of hydrocarbons, *217, 337
—— *See* Miner, D. L., *296, 416
Miller, J. M. *See* Mayo, C. W., 724
Miller, L. E. *See* Coley, B. L., 71
Miller, M. L., *et al.,* 884
Mills, C. A. *See* Wallace, E. W., 556
Mills, W. M., 647
—— *See* Blake, H. S., 640
Mindlin, E. P. *See* Zucker, J. M., 884
Miner, D. L., Miller, J. A., Baumann, C. A., and Rusch, H. P. The effect of pyridoxin and other B vitamins on the production of liver cancer with *p*-dimethylaminoazobenzene, *296, 416
Mintz, I. L. *See* Schindler, R., 214
Miscall, L. *See* Dudley, G. S., 641
Mitchell, H. C., *et al.,* 721
Mitchell, J. S., 415 (2 abs)
Mitchell, N., *et al.,* 423
—— *See* Gewanter, A. P., 568
Mitochondria and Golgi apparatus, induced and spontaneous hepatomas. Dalton, A. J., and Edwards, J. E., **129, 341
—— —— inclusion bodies in spontaneous hepatomas. Burns, E. L., and Schenken, J. R., *697, 785
Moccasin venom and high temperature, effect on viability of lymphocytes and polymorphonuclear leukocytes. Schrek, R., 711
Mole, hydatidiform, and chorionepithelioma. Schulze, M., 564
—— —— —— —— Holman, A., 719
—— —— —— —— McLaughlin, E. F., 792
—— —— infiltrating. Moss, L. D., *et al.,* 720
Montgomery, H. *See* Kierland, R. R., 805
Mooney, B. R., 720
Moore, M. R., *et al.,* 716
Moore, R. A. *See* Miller, M. L., 884
Moreland, R. B., *et al.,* 642
Morphogenesis and biochemistry. Needham, J., 494
Morris, H. P., *et al.,* 340, 710
—— **Lippincott, S. W., and Robertson, W. van B.** Increase in the number and the rate of growth of spontaneous mammary carcinomas caused by riboflavin in C3H mice, **129
—— *See* Lippincott, S. W., **129, 339
Morse, S. F. *See* Dudley, G. S., 641
Morton, C. B., *et al.,* 642
Morton, C. B. II, 214
Morton, H. B., 347
Moss, L. D., *et al.,* 720
Moss, R. E., 493
Mottram, J. C., *et al.,* 338, 341
—— *See* Doniach, I., 626 (2 abs)
Mouth and face cancer. Blair, V. P., *et al.,* 639
—— carcinoma metastatic to lymph nodes in neck. Kennedy, R. H., 721
—— chronic ulcerative lesions, cancer incidence, at Barnard Hospital. Keyes, E. L., 143
—— in hyperparathyroidism. Strock, M. S., 567
—— lesions, precancerous, of avitaminosis B. Martin, H., *et al.,* 344
—— papillomatosis, viral, rabbits. Parsons, R. J., *et al.,* 786
Mueller, G. C., and Rusch, H. P. Irradiated benzpyrene and inhibition of urease activity, *113, 210
Mulder, H. J. *See* Lindeboom, G. A., 347
Mulligan, R. M., 492, 639
Mulliken, B. *See* Turner, J. C., 207
Mulsow, F. W., 646
Multiple carcinoma. Asbury, M. K., *et al.,* 807
—— —— Hellendall, H., 568
—— —— Ohlman, I. L., *et al.,* 808
—— —— Wehrbein, H. L., *et al.,* 646
—— —— metachronous. Peller, S., 646
—— tumors, primary, acquired cancer immunity. Schmidt, E. A., 646
Munroe, D., 491
Murphy, Jas. B., 342
—— **and Sturm, E.** The effect of sodium pentobarbital, paradichlorbenzene, amyl acetate, and sovasol on induced resistance to a transplanted leukemia of the rat, *173, 278
Murray, J. M. *See* Spangler, J. M., 559
Murray, M. R., *et al.,* 211, 555
—— *See* Stout, A. P., 423
Musa, A. B., *et al.,* 797
Muscle lipoma. Hoffman, H. O. E., 728
—— liver, and mammary tumor, riboflavin concentration. Morris, H. P., *et al.,* 709
—— skeletal, metastatic carcinoma. Mulsow, F. W., 646
Muscolo, D., *et al.,* 721
—— *See* Bianchi, A., 804
Myasthenia gravis, malignant thymoma excision. Turnbull, F., 567
—— —— thymic tumor excision. Campbell, E., *et al.,* 567
Mycosis fungoides and lymphogranulomatosis maligna, etiology. Lövgren, O., *et al.,* 215
Myelocytoma, kidney. Kretschmer, H. L., 565
Myeloma, multiple. Flax, J., 727
—— —— Levitt, A., *et al.,* 424
—— —— associated with leukemic manifestations and spinal cord degeneration. Lindeboom, G. A., *et al.,* 347
—— —— soft tissue metastasis. Donhauser, J. L., 144
—— —— with visceral involvement. Churg, J., *et al.,* 280
—— plasma cell, of bone. Kirsch, I. E., 727
—— Takata reaction. Hafström, T., 144
Myoblastoma, granular cell. Horn, R. C., Jr., *et al.,* 637
—— labium majus. Tamis, A. B., *et al.,* 793
—— skin and trapezius muscle. Tuta, J. A., *et al.,* 566
Myoepithelium proliferations, breast. Kuzma, J. F., 637
Myoma, human, analogy of experimental guinea pig fibroids. Marx, R., *et al.,* 878
—— multiple, removal. Sherwood, M. W., 564
—— removal during pregnancy. Hefferman, R. J., 563
—— vagina. Bennett, H. G., Jr., *et al.,* 790
Myositis ossificans, sarcoma. Pack, G. T., *et al.,* 566
Myxoma and fibroma viruses, antigenic relationship. Shaffer, J. G., 555
—— virus, infectious, Sanarelli, transformation of Shope rabbit fibroma virus into. Houlihan, R. B., 708
Myxosarcoma, connective tissue tumor, in area of Bartholin gland. Smiley, I., *et al.,* 792
—— skin. Maynard, M. T.-R., 562

Naphthacene effect on fluorescence of hydrocarbons. Miller, J. A., and Baumann, C. A., *217, 337
Naphthalene, 2,7-dihydroxy-, effect on tumor incidence and mammary gland growth in mice. Jones, E. K., *168, 275
β-Naphthylamine inducing epithelial bladder tumors in dogs. Bonser, G. M., 486
Nathanson, I. T. The urinary excretion of estrogens and 17-ketosteroids in premenopausal carcinoma of the breast, **132
—— 633
National Radium Commission, London, 215
Neck and chest tumors, nonneoplastic disease, and foreign bodies, demonstration by body section roentgenography. Young, B. R., 420
—— —— head, schwannomas. Ehrlich, H. E., *et al.,* 637
—— carcinoma, metastatic. Martin, H., 721
—— head and face tumors. Wolfer, J. A., 808
—— lymph nodes, metastasis. Martin, C. L., 344
—— —— —— —— from mouth carcinoma. Kennedy, R. H., 721
—— papillary adenocystoma lymphomatosum. Tuta, J. A., 349
Needham, J., 494
Neff, F. C., *et al.,* 645
—— *See* Maurer, L. E., 637
Negroes, bronchiogenic carcinoma. Quinland, W. S., 346
—— carcinogen in livers. Steiner, P. E., *385, 488
Neigus, I. *See* Wolfe, S. A., 793
Neilson, D. R. *See* Watkins, R. E., 720
Neiman, B. H. *See* Beilin, L. M., 565
Nelson, A. A., Fitzhugh, O. G., and Calvery, H. O. Liver tumors following cirrhosis caused by selenium in rats, *230, 338
Nelson, C. V. *See* Lorenz, E., **123
Nephromas, embryonal, in rabbit, occurrence and transplantation. Greene, H. S. N., *434, 561
Nerve, acoustic, bilateral neurofibromas. Reeves, D. L., 717
—— —— tumors, roentgenography. Schwartz, C. W., 419
—— sheath tumors in fish of snapper family (Lutianidae). Lucké, B., 343
Nervous system, central, epidermoid, dermoid, and teratomatous tumors. Peyton, W. T., *et al.,* 493
—— —— metastatic tumors. Baker, A. B., 345
—— —— normal and neoplastic tissues, alkaline phosphatase. Landow, H., *et al.,* 630
Nesbit, R. M., *et al.,* 213
Nesselrod, J. P., *et al.,* 725
Nettleship, A., 711
Neubuerger, K. T., and Davis, C. L. Cerebral tumor in a dog resembling human medulloblastoma, *243, 343
Neuffer, F. *See* Equen, M., 639
Neurilemmoma, bone. Conley, A. H., *et al.,* 347
—— head and neck. Ehrlich, H. E., *et al.,* 637
Neurinomas, auditory, and von Recklinghausen's disease. Hadley, G. H., 788
Neuroblastoma, adrenal, ocular findings. Bothman, L., *et al.,* 717
—— —— orbital metastases. Guibor, G. P., 789
—— mediastinum, with pheochromoblastomatous elements. Wahl, H. R., *et al.,* 640
—— sympatheticum. Rosenblum, P., 717
Neuroepithelioma, temporal bone, extension into middle and posterior fossae. Tuta, J. A., 727
Neurofibroma, bilateral acoustic. Reeves, D. L., 717
—— cervical spinal cord. Macnab, G. H., 637
—— foot. Hauser, E. D. W., 788
—— kidney. Saphir, O., *et al.,* 797
—— orbit. Spaeth, E. B., 718
Neurogliogenic tumors, brain ganglioglioma. Courville, C. B., *et al.,* 716
Neuroma, ganglion cell, pharynx. Foster, J. H., 799
—— mediastinum. Schaffner, V. D., *et al.,* 640
—— plexiform, about orbit. Spaeth, E. B., 718
Neuswanger, C. H., *et al.,* 638
Neutron and x-ray effects on lymphoma chromosomes in nuclear cycle. Marshak, A., 631
—— —— —— —— on mitosis. Marshak, A., **127
—— fast, cancer treatment. Gray, L. H., *et al.,* 883.
—— —— —— —— Stone, R. S., *et al.,* 636
Nevocarcinoma, malignant melanoma. Wigley, J. E. M., 715
Nevus, epithelioma from, lymph node metastases. Ponce, M. E., 715
—— pigmented basal cell, congenital, source of multiple basal cell epitheliomas. Nisbet, T. W., 562
—— verrucosus of scalp and teratoid tumor of conjunctiva. Sherman, A. R., 789
New, G. B., *et al.,* 715, 800 (2 abs)
Newell, R. R., *et al.,* 644
Newman, H. R. *See* Hyams, J. A., 806
Newman, W. *See* Landow, 630
Nisbet, T. W., 562
Nitric oxide quenching fluorescence. Weil-Malherbe, H., *et al.,* 627
Nofsinger, C. D., *et al.,* 348
Nolan, J. F., *et al.,* 344
Nose, adamantinoma of floor of right nostril, in child. Berkove, A. B., 798
—— and throat tumors. New, G. B., *et al.,* 800
—— basal cell carcinoma, and hypernephroma, double malignancy. Mathé, C. P., *et al.,* 418
—— cavity, cancer. MacComb, W. S., 143
—— choana, polypoid tumor. Pastore, P. N., *et al.,* 800
—— fibroma posterior to. Schuster, F. P., 144
—— malignant melanoma. Kaplan, I. I., 788
—— sinuses, accessory, malignant tumors. Weinberger, N. S., 800
Nosik, W. A. *See* Gardner, W. J., 418
Novak, E., 563
Nucleic acid metabolism, disturbance produced by therapeutic doses of x- and gamma-radiation. Mitchell, J. S., 415 (3 abs)
—— —— —— relation to growth. Brues, A. M., Tracy, M. M., and Cohn, W. E., **136
Nursing, foster, effect on growth of transplantable leukemias. Law, L. W., **125
—— —— —— —— tumor induction in mice injected with stilbestrol. Shimkin, M. B., *et al.,* 276
—— —— mammary cancer in breeding female mice and their hybrids. Bittner, J. J., *441, 559

Oberling, C., 350
O'Brien, F. W., 419
Ockerblad, N. *See* Neff, F. C., 645
O'Donoghue, D. H., 347
O'Donoghue, J. B., *et al.,* 347
Ogden, H. D., Jr. *See* Kahle, P. J., 213, 795
Ohlmacher, J. C., 215
Ohlman, I. L., *et al.,* 808
Olcott, C. T., and Papanicolaou, G. N. Studies on spontaneous tumors in guinea pigs. III. A chondrosarcoma of the iliac bone with metastasis to the mammary region, *321, 418
—— *See* Papanicolaou, G. N., 343
Oldberg, E., 493
—— *See* Jenkinson, E. L., 345
Olshausen, K. W. *See* Warren, S., 564
Olsman, L., *et al.,* 644
Omentum, hemangiopericytoma. Stout, A. P., *et al.,* 887
Ontario Commission for Investigation of Cancer Remedies, report on "glyoxylide," 712
Operative risk in cancer. Johnson, A. S., 568
Opie, E. L., 806
Ormsby, O. S., 636
Orndorff, B. H. *See* Essenberg, J. M., 647
Orr, T. G. *See* Schnedorf, J. G., 564, 728
Osborne, R. L., 643
Osteitis fibrosa cystica, accompanying malignant parathyroid tumor. Gentile, R. J., *et al.,* 646
Osteoblastoma, malignant, Brachetto-Brian. Valls, J. E., 728
Osteochondromas, base of skull. List, C. F., 644

Osteogenic sarcoma. *See* Sarcoma
Osteoma, external auditory canal. Druss, J. G., *et al.,* 789
—— orbitoethmoidal, with infected intracranial mucocele. Hamby, W. B., 727
—— osteoid. Wile, S. A., 728
—— —— of astragalus. Horwitz, T., 643
Osteosis cutis in methylcholanthrene epidermal carcinogenesis. Stowell, R. E., *et al.,* 338
Ostergard, R. P. *See* György, P., 555
Oughterson, A. W., *et al.,* 208
—— *See* Harms, C. R., 568
Ovary, adenofibromas and cystadenofibromas. Scott, R. B., 720
—— and anterior hypophysis of rat strains, one with high incidence of mammary fibroadenoma. Wolfe, J. M., and Wright, A. W., *497, 631
—— —— endometrium, patients with fundal carcinomas. Jones, H. O., *et al.,* 791
—— arrhenoblastoma, Collins, C. G., *et al.,* 211
—— —— Kanter, A. E., *et al.,* 791
—— —— Krock, F., *et al.,* 719
—— atlas of tumors. Barzilai, G., 494
—— Brenner tumor. Fox, R. A., 211
—— —— —— associated with uterine bleeding. Marwil, T. B., *et al.,* 563
—— —— —— bilateral. Peale, A. R., 792
—— carcinoma, and leiomyosarcoma of uterus, simultaneous. Major, J. W., 418
—— —— radiation and surgery. Keith, D. Y., 719
—— —— silent. Crossen, H. S., 211
—— cystic tumors. MacCarty, W. C., Sr., 719
—— dermoid cysts. Linn, H. J., *et al.,* 792
—— —— —— bilateral complicating pregnancy, bilateral oophorectomy. Goodwin, R. H., 791
—— —— —— with squamous cell carcinoma. Brody, S., 791
—— dysgerminoma, accompanied by tuberculoid reaction. Heller, E. L., 563
—— dysontogenetic tumors, endocrine effects. Novak, E., 563
—— fibroma, and hydrothorax (Meigs' syndrome). Herrick, W. W., *et al.,* 563
—— function and mammary cancer incidence, mouse, influence of caloric restriction. Ball, Z. B., Huseby, R. A., and Visscher, M. B., **131
—— granulosa and theca cell tumors. Henderson, D. N., 563
—— —— cell carcinoma. Gnassi, A. M., *et al.,* 211
—— —— —— myoblastoma. Horn, R. C., Jr., *et al.,* 637
—— —— —— tumor. Harris, W. H., 211
—— —— —— —— and carcinoma of uterus. Stohr, G., 568
—— —— —— —— bilateral, following radium therapy for cervical carcinoma with papillary cystadenoma of same ovary. Tyrone, C. H., *et al.,* 793
—— —— —— —— bilateral, in infant. Zemke, E. E., *et al.,* 793
—— mesonephroma. Jensik, R. J., 719
—— —— or teratoid cystadenoma. Stromme, W. B., *et al.,* 564
—— neoplasms. Dockerty, M. B., 638
—— papillary tumors, significance of psammoma calcification in roentgen diagnosis. Lingley, J. R., 71
—— parvilocular tumors. Schiller, W., 563
—— right, fibroma, and spontaneous amputation and subsequent acute torsion of normal left fallopian tube. Barrett, C. W., *et al.,* 790
—— sarcoma and tubal carcinoma. Gardner, H. L., *et al.,* 807
—— teratoma, in young girl. Smeltzer, M., 792
—— thecoma. Barnes, J., 718
—— —— Dowling, U. J., 638
—— —— Wolfe, S. A., *et al.,* 793
—— —— and endometrial carcinoma. Porter, J. E., *et al.,* 808
—— thyroid tumor. Sailer, S., 720
—— tumors. Schulze, M., 720
—— —— pregnancy. MacKenzie, R. A., 719
—— —— presenting endocrine manifestations. Scheffey, L. C., 720
Ovary, tumors, pubertas praecox. Lull, C. B., 792
—— —— solid. Dockerty, M. B., 719
Oxidase, *d*-amino acid, and cytochrome oxidase in tumor. Shack, J., 628
—— **cytochrome,** and *d*-amino acid oxidase in tumor. Shack, J., 628
—— —— and succinic dehydrogenase in cancer tissue. Schneider, W. C., and Potter, V. R., *353, 489
Oxygen effect on fluorescence of hydrocarbons. Miller, J. A., *et al.,* 877

Pack, G. T., *et al.,* 566
—— *See* Abels, J. C., *177, 277
Paget's disease, sarcomatous degeneration. Schajowicz, F., 727
Pai, H. C. *See* Hu, C. H., 347
Pain, cancer control. Greenhill, J. P., 491
—— —— of face, jaws, and neck, neurosurgical relief. Munro, D., 491
—— female pelvis, diagnosis and treatment. Davis, M. E., 563
Palate, benign and malignant tumors. Martin, H., 799
Paletta, F. X., *et al.,* 210, 276
Palmer, W. W. *See* Keston, A. S., 344
Pancreas adenoma, with hyperinsulinism. Stein, W., 807
—— and ampullary region, cancer. Whipple, A. O., 728
—— —— ampulla of Vater, carcinoma, fatty infiltration of liver. Schnedorf, J. G., *et al.,* 728
—— —— carotid body tumor. Goodof, I. I., *et al.,* 647
—— carcinoma causing obstructive jaundice. Sallick, M. A., *et al.,* 806
—— —— resection. Todd, M. H., 807
—— head, and duodenum, excision for carcinoma of ampulla, method of anastomosing pancreatic duct to jejunum. Phillips, J. R., 642
—— —— carcinoma, modified Whipple operation. Dennis, C., 806
—— —— roentgen diagnosis of space-occupying lesions. Rendich, R. A., 72
—— snake, neoplastic disease. Ratcliffe, H. L., 632
—— tail, carcinoma, with small bowel perforation and peritonitis. Tollman, J. P., *et al.,* 646
—— tumor, orbital metastasis. Sniderman, H. R., 789
Pantothenic acid and vitamin B_6, influence on growth of sarcoma 180. Bischoff, F., *et al.,* 628
Papanicolaou, G. N., *et al.,* 343, 792
—— *See* Olcott, C. T., *321, 418
Papilloma, anus. Drueck, C. J., 788
—— renal pelvis, associated with early renal cell carcinoma. Dick, V. S., 346
—— tonsil and uvula. Henner, R., 797
—— virus, cottontails, x-ray effect. Syverton, J. T., Warren, S. L., Dascomb, H. E., and Berry, G. P., **128
—— —— effectiveness on hyperplastic epidermis, enhanced by cell state. Friedewald, W. F., 556
—— —— protein studied with electron microscope. Sharp, D. G., *et al.,* 556
—— —— —— tissue factor hydrolyzing. Bernheim, F., *et al.,* 210
—— virus-induced, in cottontails, failure of methylcholanthrene to accelerate papilloma-to-cancer sequence. Syverton, J. T., Wells, E. B., and Berry, G. P., **124
Papillomatosis, bladder. Kirwin, T. J., 422
—— viral, mouth, of rabbits. Parsons, R. J., *et al.,* 786
Parabiosis, growth of alien strain tumors. Harris, M., *546, 629
—— hybrid and pseudo-hybrid mice, reactions to tumor C198. Cloudman, A. M., *47, **125, 142
Paradichlorbenzene, pentobarbital, amyl acetate, and sovasol, effect on induced resistance to transplanted rat leukemia. Murphy, Jas. B., and Sturm, E., *173, 278
Paraganglioma, adrenal medulla, simulating carcinoma of adrenal cortex. McGavack, T. H., *et al.,* 645
Paramecium caudatum, effects of carcinogenic agents. Tittler, I. A., *et al.,* 488
Parasagittal syndrome, brain lesions simulating effects. Courville, C. B., 716

Parathyroid adenoma. Cochrane, R. C., 567
—— —— Curtis, C. S., *et al.*, 567
—— carcinoma. Meyer, K. A., *et al.*, 349
—— tumor causing hypercalcemia. Jobe, M. C., 349
—— —— malignant, with osteitis fibrosa cystica. Gentile, R. J., *et al.*, 646
Pariera, M. D. *See* Kirtz, L. P., 345, 808
Parker, M. L. *See* Saphir, O., 424
Parkhill, E. M. *See* Benedict, W. L., 787
Parotid, mixed tumor with metastases. Perrin, T. L., 423
—— papillary cystadenoma lymphomatosum. Robinson, D. W., *et al.*, 639
Parsons, R. J., *et al.*, 786
Parsons, W. H., *et al.*, 562
Parvilocular tumors, ovary. Schiller, W., 563
Pascucci, L. M., 645
Pastore, P. N., *et al.*, 800
Patterson, D. C., *et al.*, 725
Peale, A. R., *et al.*, 563, 792
—— *See* Aegerter, E. E., 647
Pearl, F. L., *et al.*, 642
Pearlman, W. H., 276
Pearman, R. O., *et al.*, 887
Pearse, R., 797
Pearson, B., *et al.*, 638
—— **and Garcia, M.** Skeletal involvement in carcinoma of the cervix, **132
Peikoff, S. S., 725
Peirce, C. B., 883
Peller, S., 646, 728
Pelton, T. H. *See* Melicow, M. M., 795
Pelvis, carcinoma, role of fallopian tubes in spread. Wallis, O., 349, 793
—— endometriosis. Dannreuther, W. T., 791
—— female, pain. Boughton, T. G., 563
—— peritoneum, implanted epidermoid carcinoma. Williams, C., *et al.*, 720
Pembleton, W. E. *See* Vinson, P. P., 722
Penberthy, G. C. *See* Benson, C. D., 726
Pendergrass, E. P., *et al.*, 713
Penis sarcoma. Wheelock, M. C., *et al.*, 796
Pennington, D. *See* Taylor, A., 556
Pentose nucleotides in cytoplasm after irradiation. Mitchell, J. S., 415
Perera, C. A., 718
—— *See* Gomes, J. P., 717
Peritoneoscopy. Buchtel, H., 344
—— diagnosis of abdominal tumors. Garrey, W. E., 561
Peritoneum and lung effusions, cells from, in tissue culture. Coman, D. R., *526, 630
—— mesothelioma (endothelioma). Ramsey, T. L., *et al.*, 568
—— tumors behind, influencing kidneys and ureters. Sweetser, T. H., 349
Perkins, C. W., 348
Pernworth, P. H., 796
Perrin, T. L., 423
Perrone, J. A., *et al.*, 279
Perry, I. H., Strait, L. A., and McCawley, E. L. A spectrochemical study of estrogen-induced mammary cancer in mice. II. Distribution of triphenylethylene in the mamma and in mammary cancer induced by this estrogen, *378, 489
—— *See* Strait, L. A., *370, 489
Persky, A. *See* Sloane, P., 637
Pessin, J., 717
Peterson, L. T. *See* Sloat, J. I., 347
Peterson, V. L., 788
Peyton, W. T., *et al.*, 493
—— *See* French, L. A., 493
Pfeiffer, C. A., and Hooker, C. W. The effects of pregnant mare serum upon the course of development of testicular tumors in mice of the A strain, **124
—— **and** —— Testicular changes resembling early stages in the development of interstitial cell tumors in mice of the A strain after long-continued injections of pregnant mare serum, *762, 878
Phalen, G. S. *See* Macey, H. B., 644
Pharynx and upper esophagus, carcinoma, surgery. Wookey, H., 423
—— ganglion cell neuroma. Foster, J. H., 799
Phemister, D. B., 280
Phenols, conjugation by gastrointestinal cancer patients. Ables, J. C., Pack, G. T., and Rhoads, C. P., *177, 277
o-Phenylenediamine, N,N,N′,N′-tetramethyl-, effects on tissue cultures of malignant lymph nodes. Chambers, R., Cameron, G., and Kopac, M. J., *293, 414
p-Phenylenediamine, N,N-dimethyl-, effects on liver tumors induced by *p*-dimethylaminoazobenzene in tissue culture. Cameron, G., Kopac, M. J., and Chambers, R., *281, 413
Pheochromoblastoma elements, neuroblastoma of mediastinum. Wahl, H. R., *et al.*, 640
Pheochromocytoma of adrenal gland. Hyman, A., *et al.*, 887
—— malignant, of adrenal medulla, simulating carcinoma of adrenal cortex. McGavack, T. H., *et al.*, 645
Philadelphia Naval Hospital, lung carcinoma. Fetter, F., 721
Phillips, J. R., 642 (2 abs)
Phillips, R. B., *et al.*, 725
Phosphatase, acid and alkaline, distribution in tumors, normal tissues, and tissues of tumor-bearing animals. Greenstein, J. P., 339
—— acid, prostatic carcinoma. Mena Brito, M. A., 796
—— activity in bone tumors, relation to deposition of radioactive phosphorus. Woodard, H. Q., 142
—— alkaline in normal and neoplastic tissues of nervous system. Landow, H., *et al.*, 630
—— serum acid, determination in metastasizing prostatic carcinoma, effects of castration. Sullivan, T. J., *et al.*, 213
—— —— —— carcinoma of prostate. Gutman, A. B., 212
—— —— —— —— of prostate. Herger, C. C., *et al.*, 794
Phosphorus, radioactive, concentration in superficial tissues from living patients. Marinelli, L. D., *et al.*, 631
—— —— deposition in bone, relation of phosphatase activity in bone tumors. Woodard, H. Q., 142
—— —— distribution of doses in leukemic patients. Warren, S., *334, 415
—— —— retention in leukemic patients. Warren, S., *872, 881
—— —— therapy in leukemia. Low-Beer, B. V. A., *et al.*, 635
—— —— treatment of lymphosarcoma. Kenney, J. M., *et al.*, 71, 634
—— —— uptake by nuclei. Marshak, A., 558
Pickworth, M. E., 424
Pierce, M., 278, 561
Pineal tumors. Horrax, G., *et al.*, 807
—— —— Russell, W. O., *et al.*, 807
Pines, B., *et al.*, 348
del Pino, P., *et al.*, 727
Pirie, A., 417
Pitts, H. C., 728
Pituitary adenoma, simulated by craniopharyngeal neoplasm. Coon, W. L., 887
—— gigantism. Hurxthal, L. M., 646
—— lactogenic hormone initiating secretory changes in transplanted mammary gland adenocarcinoma. Eisen, M. J., 707
—— tumors, Cranmer, R. R., 887
—— —— management and treatment. Adelstein, L. J., 887
Plant hormones inhibiting tumor growth. Kline, B. E., and Rusch, H. P., *702, 785
Platou, R. V., *et al.*, 727
Plaut, A., and Kohn-Speyer, A. C. The skin tunnel. A device for keeping substances in contact with the skin, *176, 278
Plaut, J. A. *See* Harms, C. R., 568
—— *See* Oughterson, A. W., 208
Pleura, endothelioma. Saccone, A., *et al.*, 721
—— —— roentgenology. Doub, H. P., *et al.*, 639
Pohle, E. A., *et al.*, 72
Pohlen, K., *et al.*, 648
Poley, P. P., *et al.*, 786
Pollack, M. A. *See* Taylor, A., 490

Pollock, L. J., 493
Polysaccharide and hyaluronidase from tumors. Pirie, A., 417
—— bacterial, causing hemorrhage in mouse sarcoma. Hartwell, J. L., Shear, M. J., and Adams, J. R., Jr., **122
Polyuria and brain tumor. Maurer, L. E., *et al.,* 637
Ponce, M. E., 715
Poppel, M. H. *See* Rendich, R. A., 72
Porter, J. E., *et al.,* 808
Portilla, R. *See* Ajamil, L. F., 787
Potassium α-naphthalene acetate, influence on carcinoma growth. Tuboi, S., 343
Potter, J. S., *et al.,* 561
Potter, V. R. Biocatalysts in cancer tissue. IV. An enzyme-virus theory regarding carcinogenesis, *358, 490
—— **and DuBois, K. P.** Carcinogenesis and the inhibition of succinic dehydrogenase by *p*-dimethylaminoazobenzene derivatives, **133
—— *See* Albaum, H. D., *303, 416
—— *See* Schneider, W. C., *353, 489
Power, H. A., 790
Poyner, H. *See* Biesele, J. J., *779, 882
Pratt, G. E. *See* Barden, R. P., 647
Precancerous lesions. Saphir, O., 418
Pregnancy and breast carcinoma. Power, H. A., 790
—— —— cervix carcinoma. Kirtz, L. P., *et al.,* 345
—— —— fibrosarcoma of buttock. Kirtz, L. P., *et al.,* 808
—— —— kidney carcinoma. Vitt, A. E., *et al.,* 565
—— —— rectal carcinoma. Mayo, C. W., *et al.,* 724
—— bilateral giant fibroadenoma simulating cancer. Reed, H. L., *et al.,* 638
—— —— ovarian dermoid cysts. Bowles, H. E., 718
—— —— —— —— cysts complicating, bilateral oophorectomy. Goodwin, R. H., 791
—— complicating Hodgkin's disease. Klawans, A. H., 805
—— —— —— —— (lymphogranuloma malignum). Kushner, J. I., 805
—— myomectomy. Hefferman, R. J., 563
—— ovarian tumors. MacKenzie, R. A., 719
—— sacculation, cesarean section followed by adenomyosis interna uteri causing atony and hemorrhage. Sackett, N. B., 792
—— tubal, and chorionepithelioma, pulmonary metastases. Smith, J. T., *et al.,* 793
—— uterine fibroids. Thompson, G. G., 720
Pregnanediol values, low, in chorionepithelioma following tubal pregnancy. Smith, J. T., *et al.,* 793
Prewitt, L. H., *et al.,* 721
Priapism, malignant, accompanying carcinoma of urethra. Ikeda, K., *et al.,* 794
Price, H. P. *See* Gnassi, A. M., 808
Priestley, J. T., 725
—— *See* Dockerty, M. B., 212, 345
—— *See* Lynch, R. C., 724
—— *See* Schulte, T. L., 646
—— *See* Sprague, R. G., 645
Prince, C. L., 213 (2 abs), 346
Progesterone, estrogen, and testosterone effects on benign mammary tumors. Heiman, J., *65, 141
Prostate and epididymis, lymphosarcoma. Tenenbaum, J., 346
—— carcinoma. Evans, N., *et al.,* 212
—— —— Gordon, H., 794
—— —— Hamm, F. C., 212
—— —— Quinby, W. C., 638
—— —— Stone, E., 796
—— —— Strohm, J. G., 796
—— —— Villanueva, A., 796
—— —— acid phosphatase. Mena Brito, M. A., 796
—— —— advanced, endocrine effects. Huggins, C., 794
—— —— and hormones. Creevy, C. D., 794
—— —— androgen inhibition. Low, H. T., *et al.,* 795
—— —— altered hormonal balance. Herbst, W. P., 794
—— —— biochemical therapeusis. Herbst, W. P., 212
—— —— castration. Alyea, E. P., *et al.,* 422
—— —— —— Nesbit, R. M., *et al.,* 213
—— —— —— Neuswanger, C. H., *et al.,* 638
Prostate carcinoma castration. Pernworth, P. H., 796
—— —— —— Randall, A., 422
—— —— —— Rupel, E., 564
—— —— —— Editorial, 796
—— —— —— and estrogen administration. Chute, R., *et al.,* 638
—— —— —— —— estrogen administration. Marquardt, C. R., 795
—— —— —— bilateral. Alyea, E. P., *et al.,* 211
—— —— —— excretion of 17-ketosteroids, estrogens, and gonadotropins. Scott, W. W., *et al.,* 631
—— —— —— subcapsular. Riba, L. W., 796
—— —— diethylstilbestrol and diethylstilbestrol dipropionate. Kahle, P. J., *et al.,* 213
—— —— —— —— diethylstilbestrol dipropionate, cytologic changes following treatment. Schenken, J. R., *et al.,* 213
—— —— —— —— diethylstilbestrol dipropionate treatment. Kahle, P. J., *et al.,* 795
—— —— —— treatment. Heckel, N. J., *et al.,* 212
—— —— early. Creevy, C. D., 212
—— —— —— radical perineal prostatectomy. Belt, E., 212
—— —— endocrine treatment. Dean, A. L., *et al.,* 422
—— —— —— —— Marquardt, C. R., *et al.,* 795
—— —— estrogen treatment. Kearns, W. M., 795
—— —— —— —— Unger, A., 796
—— —— in Connecticut. Griswold, M. H., 794
—— —— metastasizing, serum acid phosphatase determination, effects of castration. Sullivan, T. J., *et al.,* 213
—— —— relation of circumcision. Ravich, A., 213
—— —— serum acid phosphatase. Gutman, A. B., 212
—— —— —— —— phosphatase. Herger, C. C., *et al.,* 794
—— —— stilbestrol effect on metastasis. Weller, C. G., 796
—— —— —— —— and intracapsular orchiectomy. Chute, R., *et al.,* 422
—— hypertrophy and adenoma. Trabucco, A., 885.
—— —— —— cancer, hormonal treatment. Keyser, L. D., 795
—— —— benign, and carcinoma with metastasis. Tillisch, J. H., *et al.,* 796
—— —— —— bladder neoplasm. Hyman, A., *et al.,* 885
—— —— —— peroral methyltestosterone. Markham, M. J., 795
—— —— —— relation of urinary androgen and estrogen ratio. Miller, M. L., *et al.,* 884
—— malignant lesions, transurethral resection. Thompson, G. J., 213
—— sarcoma. Melicow, M. M., *et al.,* 795
—— surgery at Wisconsin General Hospital. Sisk, I. R., *et al.,* 796
Protein, blood, formation, *p*-dimethylaminoazobenzene effect. Kline, B. E., *117, 209
—— cancer tissue, specific precipitin antiserums. Mann, L. S., and Welker, W. H., *193, *196, 278 (2 abs)
—— conjugated, and carcinogenic hydrocarbons, spectrography. Jones, R. N., and Creech, H. J., **134
—— nitrogen and lipid ratio of epidermis reduced by single methylcholanthrene application. Wicks, L. F., *et al.,* 555
—— papilloma virus, studied with electron microscope. Sharp, D. G., *et al.,* 556
—— —— —— tissue factor hydrolyzing. Bernheim, F., *et al.,* 210
Proteose changes in blood induced by transplantable and primary tumors. Winzler, R. J., and Burk, D., **135
Psammoma calcification, significance in roentgen diagnosis of papillary tumors of ovary. Lingley, J. R., 71
—— orbit. Fry, W. E., *et al.,* 717
Pseudohermaphrodites, malignant testis tumors. Gilbert, J. B., 422
Pseudomyxoma peritonei, human, heterotransplantation into mice and rats. Zondek, B., Mandl, F., Sulman, F., Brezezinski, A., and Tietz, H. G., *198, 278
—— peritoneum, roentgenologic aspect. Pugh, D. G., 635
Pubertas praecox due to ovarian tumors. Lull, C. B., 792
—— —— —— —— testis tumor of interstitial cell origin. Werner, A. A., *et al.,* 565

Pugh, D. G., 635
—— *See* Weber, H. M., 714
Pusch, L. C., 802
Pylorus, ulcers. Smedal, M. I., 714
—— —— cancer incidence. Kirklin, B. R., *et al.,* 424
Pyridoxine and choline in prevention of epithelial hyperplasia in forestomach. Sharpless, G. R., *et al.,* 417
—— —— other B vitamins inhibiting production of liver cancer with *p*-dimethylaminoazobenzene. Miner, D. L., Miller, J. A., Baumann, C. A., and Rusch, H. P., *296, 416
—— effect on tumor growth. Kline, B. E., Rusch, H. P., Baumann, C. A., and Lavik, P. S., *825, 880

Quinland, W. S., 346
Quinone and hydroxy derivatives of 3,4-benzpyrene. Berenblum, I., *et al.,* *145, *151, 275 (2 abs)

Rabinovitch, J. *See* Pines, B., 348
Radiation and methyocholanthrene inducing leukemia. McEndy, D. P., 560
—— —— neutron effects on mitosis. Marshak, A., **127
—— —— radium dermatitis. Ghormley, R. K., 713
—— —— —— treatment, cancer of cervix uteri. Simpson, F. E., *et al.,* 344
—— benzpyrene, inhibition of urease activity. Mueller, G. C., and Rusch, H. P., *113, 210
—— brain tumors in children, danger of treatment without biopsy. Ingraham, F. D., *et al.,* 491
—— cholesterol, fluorescence spectrum. Roffo, A. E., Jr., 785
—— diagnosis, acoustic nerve tumors. Schwartz, C. W., 419
—— —— and gastroscopic diagnosis of gastric cancer. Templeton, F. E., 72
—— —— bone tumors. Sutherland, C. G., 72
—— —— bones in Cushing's syndrome. Sussman, M. L., *et al.,* 636
—— —— cancer, argentaffin tumors of small bowel. Miller, E. R., *et al.,* 635
—— —— chorionepithelioma in male and female. Arendt, J., 491
—— —— diaphragm abnormalities secondary to tumors. Turner, J. W., 492
—— —— —— tumors. Ackermann, A. J., 71
—— —— duodenal carcinoma. Ritvo, M., 72
—— —— endothelioma of pleura. Doub, H. P., *et al.,* 639
—— —— gliomas. Sterling, H. W., 714
—— —— intramural extramucosal tumors of esophagus and gastrointestinal tract. Schatzki, R., *et al.,* 714
—— —— leiomyoma. Editorial, 803
—— —— lesions involving ileum, cecum, and proximal ascending colon. Pendergrass, E. P., *et al.,* 713
—— —— malignant tumors of small intestine. Swenson, P. C., 788
—— —— papillary tumors of ovary, significance of psammoma calcification. Lingley, J. R., 71
—— —— pseudomyxoma peritonaei. Pugh, D. G., 635
—— —— response of carcinoma of prostate to bilateral orchiectomy. Alyea, E. P., *et al.,* 211
—— —— space-occupying lesions in head of pancreas. Rendich, R. A., 72
—— —— stellate impression in cardiac end of stomach simulating tumor. Hodges, F. M., 71
—— —— tumors of small intestine. Weber, H. M., *et al.,* 419
—— —— —— nonneoplastic disease, and foreign bodies in neck and chest. Young, B. R., 420
—— —— ulcerating carcinoma of stomach, meniscus-complex. Kirklin, B. R., 71
—— effect on blood and hemopoietic tissues, including spleen, thymus, and lymph nodes. Warren, S., *et al.,* 345
—— —— —— cancer cells, no liver cancer inhibition. Williams, G. Z., *et al.,* 709
—— —— —— hypotonic cytolysis of sea urchin eggs. Grand, C. G., and Chambers, B., **127
—— —— —— normal tissues. Warren, S., 419
Radiation effect on virus-induced papillomas on cottontails. Syverton, J. T., Warren, S. L., Dascomb, H. E., and Berry, G. P., **128
—— enhancing leukemogenic action of methylcholanthrene. Furth, J., *et al.,* 881
—— frog sperm cells, inducing growth lesions. Henshaw, P. S., **127, 709
—— inducing gastrointestinal lesions. Mulligan, R. M., 492
—— —— —— —— Warren, S., *et al.,* 492
—— —— resistance to transplanted tumors. Goldfeder, A., 708
—— non-ionizing, measured for medical purposes. Mayneord, W. V., *et al.,* 883
—— sensitivity, sarcoma in tissue culture. Chambers, R., and Grand, C. G., **127
—— skin cells and tissues. Harvey, W. F., 419
—— therapy. Kaplan, I. I., 491
—— —— Love, J., 787
—— —— and fever in cancer. Shoulders, H. S., *et al.,* 491
—— —— —— malignant growths. Shoulders, H. S., *et al.,* 635
—— —— —— surgery in breast cancer. Adair, F. E., 421
—— —— —— —— breast carcinoma, 715
—— —— —— —— ovarian carcinoma. Keith, D. Y., 719
—— —— —— —— retinoblastoma. Martin, H., *et al.,* 718
—— —— brain and spinal cord tumors in children. Mandeville, F. B., 788
—— —— breast tumors. Tyler, A. F., 72
—— —— carcinoma. Goin, L. S., 71
—— —— —— Leddy, E. T., 492
—— —— —— Peirce, C. B., 883
—— —— —— of anus. Harris, W., 886
—— —— —— —— breast. Cohn, L. C., 789
—— —— —— —— breast. O'Brien, F. W., 419
—— —— —— —— breast, and regional metastases. Lenz, M., 419
—— —— —— —— breast, in State of Wisconsin General Hospital. Pohle, E. A., 72
—— —— —— —— bladder. Costlow, E. W., 633
—— —— —— —— cervix. Kerr, H. D., 713
—— —— —— —— cervix. Reinhard, M. C., *et al.,* 713
—— —— —— —— cervix, complications. Cosbie, W. G., 787
—— —— —— —— corpus uteri. Kaplan, I. I., 634
—— —— —— —— female genitalia. Fricke, R. E., 634
—— —— —— —— lip. Schreiner, B. F., *et al.,* 635
—— —— —— —— skin. Peterson, V. L., 787
—— —— —— —— tongue. Richards, G. E., 72
—— —— —— —— urinary bladder. Buschke, F., *et al.,* 418
—— —— contact, cavernous hemangioma. Kerr, H. D., 634
—— —— deep, and stilbestrol, for sarcomatous metastases. Binnie, G. G., 643
—— —— embryonal cell carcinoma of testis with pulmonary metastases. Hare, H. F., 634
—— —— Ewing's tumor of sacrum. Sloat, J. I., *et al.,* 347
—— —— following surgery, osteogenic sarcoma of sternum. Cauble, W. G., 144
—— —— genital cancer. Schmitz, H. E., 714
—— —— Hodgkins disease and lymphosarcoma. Desjardins, A. U., 633
—— —— indications. Benjamin, E. W., 713
—— —— inoperable ulcerating breast carcinoma. MacCarty, W. C., Jr., *et al.,* 635
—— —— interstitial, treatment of carcinoma of cervix. Teahan, R. W., *et al.,* 344
—— —— leukemia. Bethell, F. H., 644
—— —— nonmalignant uterine bleeding. Barr, R. E., 633
—— —— pervaginal, in carcinoma of cervix. McAlister, L. S., 787
—— —— preoperative, breast cancer. Soiland, A., 419
—— —— skin cancer. Greenberger, E. D., 787
—— —— supervoltage. Leucutia, T., 344
—— —— supplementary to radium, carcinoma of cervix. Jones, H. W., 491
—— —— technic, 715
—— —— ultra-deep, lung neoplasm. Roffo, A. E., Jr., 721
—— —— uterine cancer. Crockett, R. H., 633

Radiation tumor response influenced by host-tumor relation. Oughterson, A. W., *et al.*, 208
—— x-ray and gamma ray, therapeutic doses, disturbance of nucleic acid metabolism. Mitchell, J. S., 415 (3 abs)
—— —— —— neutron, effects on lymphoma chromosomes in nuclear cycle. Marshak, A., 631
Radiation, ultraviolet. *See* Ultraviolet radiation
Radioactive elements. *See* Iodine, Phosphorus, Strontium
Radioactivity artificially produced, therapy in leukemia. Low-Beer, B. V. A., *et al.*, 635
—— tracers in biology and medicine. Hamilton, J. G., 785
Radionecrosis differentiated from recurrent carcinoma by radon ointment. Uhlmann, E., 72
Radiosensitivity, spheno-occipital chordoma. Andrews, J. R., 633
Radiotherapy. *See* Radiation
Radium and roentgen dermatitis. Ghromley, R. K., 713
—— —— —— treatment, carcinoma of uterine cervix. Simpson, F. E., *et al.*, 344
—— —— —— —— carcinoma of uterine cervix. Jones, H. W., 491
—— —— surgery, carcinoma of maxillary antrum. Mill, W. A., *et al.*, 800
—— endoscopic use, bladder cancer. Ajamil, L. F., *et al.*, 787
—— poisoning. Stevens, R. H., 636
—— treatment. Fricke, R. E., 491
—— —— carcinoma of cervix. Trapp, E., 714
—— —— —— —— cervix and uterus. Dudgeon, H., Jr., 634
—— —— —— —— cervix, granulosa cell tumor of ovary following. Tyrone, C. H., *et al.*, 793
—— —— —— —— of corpus. Nolan, J. F., *et al.*, 344
—— —— —— —— female genitalia. Fricke, R. E., 491
—— —— —— —— upper lip, unsuccessful. Bradley, E. T., 798
—— —— indications. Fox, G. R., 713
Radon implants, bladder cancer control. Barringer, B. S., 491
—— ointment used to differentiate between radionecrosis and recurrent carcinoma. Uhlmann, E., 72
Ragins, A. B. *See* Kanter, A. E., 791
—— *See* Linn, H. J., 792
—— *See* Meyer, K. A., 349
Rakoff, A. E., 712
Ramsey, T. L., *et al.*, 568
Randall, A., 422
Rao, J. *See* McGoldrick, J. L., 563
Ratcliffe, H. L., 632
Ravich, A., 213
Rawls, J. L., 720
Read, J. *See* Gray, L. H., 883
Rectum. *See* Intestine, large
Redewill, F. H., 797
Reed, E. B., 215
Reed, H. L., *et al.*, 638
Reed, W. C. *See* Word, B., 421
Reese, A. B., 718
—— *See* Calhoun, F. P., Jr., 717
—— *See* Martin, H., 718
Reeves, D. L., 717
Reich, C., and Dunning, W. F. Studies on the morphology of the peripheral blood of rats. I. Normal rats, *248, 342
—— *See* Dunning, W. F., *258, *266, 342
Reiner, L. *See* Flory, C. M., *729, 880
Reinhard, M. C., *et al.*, 713
—— *See* Hoffman, J. G., *237, 341
Reller, H. C. *See* Cooper, Z. K., 70
Rendich, R. A., *et al.*, 72
Resnisky, A. F., 211
Respiration, human keratoses and epitheliomas. Amersbach, J. C., *et al.*, 277
Reticulin-forming and alveolar cells, cerebral meningioma. Tuthill, C. R., *et al.*, 717
—— schwannian tumor cells, *in vitro*. Murray, M. R., *et al.*, 555
Reticulum cell sarcoma, scapula excision. Christopher, F., 347
Retinoblastoma, familial incidence. Falls, H. F., 787
—— surgery and irradiation. Martin, H., *et al.*, 718
Rettenmaier, A. J., *et al.*, 645
Rhabdomyosarcoma, epididymis. Strong, G. H., 564
—— orbit. Calhoun, F. P., Jr., *et al.*, 717
—— rat tumor 92, Institute of Cancer Research, Columbia University, New York. Lewis, W. H., *867, 882
—— testicle. Prince, C. L., 213
Rhoads, C. P., *et al.*, 787
—— *See* Abels, J. C., *177, 277, 486
—— *See* Burk, D., **130
—— *See* Dobriner, K., **132
—— *See* Kensler, C. J., **134, *823, 880
—— *See* Sugiura, K., **130
Riba, L. W., 796
Riboflavin deficiency, mouse. Lippincott, S. W., *et al.*, 339
—— dietary, influence on growth rate and number of mammary carcinomas, and concentration in liver, muscle, and tumor. Morris, H. P., 710
—— increasing number and rate of growth of spontaneous mammary carcinomas. Morris, H. P., Lippincott, S. W., and Robertson, W. van B., **129
—— tumor tissues. Robertson, W. van B., and Kahler, H., **133, 340
Richards, G. E., 72
Riley, A., *et al.*, 797
Ringworm and carcinoma digiti pedi. Berlin, C., 788
Ritvo, M., *et al.*, 72, 728
Ritzmann, A. J. *See* Wikle, H. T., 349
Rivett, L. C., *et al.*, 720
Roberts, C. P., 644
Robertson, H. E., *et al.*, 727
Robertson, W. van B., and Kahler, H. The riboflavin content of tumor tissue, **130, 340
—— *See* Kahler, H., 709
—— *See* Morris, H. P., **129, 710
Robillard, G. L., *et al.*, 562, 787
—— *See* Goldman, C., 214
Robinson, D. W., *et al.*, 639
—— *See* Wahl, H. R., 640
Roderick, L. M. *See* Frank, E. R., 786
Roentgen ray. *See* Radiation
Roffo, A. E., Jr., 709, 714, 721, 785
Roffo, A. H., *et al.*, 706, 725, 800
Roffo's reaction. Stuckert, B. G., 712
Rogers, H., *et al.*, 562
Rogers, W. M., *See* Franz, V. K., 887
Romano, S. A., *et al.*, 642
Ronchese, F., 715, 806
Rones, B., 789
Rosenblatt, P., *et al.*, 422
Rosenblum, P., 717
Rosenow, J. *See* Ikeda, K., 794
Rosi, P. A. *See* Tuta, J. A., 214
Roskelley, R. C., Horwitt, B. N., and Salter, W. T. Studies in cancer. VII. Enzyme deficiency, **131
Ross, D. E., 421
Ross, W. L. *See* Werner, A. A., 565
Rosser, C., 802
Rothman, S. *See* Becker, S. W., 349
Rottino, A., *et al.*, 718
Rous sarcoma. *See* Sarcoma
Rubin, J. S., 214
Rulison, R. H., 211
Rupel, E., 564
Rupp, J. J. *See* Bischoff, F., 489, 628
Rusch, H. P., and Kline, B. E. The effect of *o*-aminoazotoluene on ultraviolet irradiation, **128
—— *See* Bain, J. A., *425, 558, *610, 708
—— *See* Baker, A. K., 627
—— *See* Kline, B. E., *702, 785, *825, 880
—— *See* Miner, D. L., *296, 416
—— *See* Mueller, G. C., *113, 210
Russ, S., *et al.*, 142
Russell, E. S. A comparison of benign and "malignant" lesions in *Drosophila melanogaster*, **125
—— 882

Russell, W. L. Methods for determining the relative importance of the major classes of environmental factors affecting tumor formation, **126
Russell, W. O., *et al.,* 279, 807
Rutledge, E. K. *See* Hill, R. M., *841, 879

Sabol, M. *See* Sharpless, G. R., 417
Saccone, A., *et al.,* 721
Sachs, E. *See* Russell, W. O., 279, 807
Sackett, N. B., 792
Sacrococcyx chordoma. Olsman, L., *et al.,* 644
—— tumors. Loe, R. H., 808
Sacrum, Ewing's tumor, irradiation. Sloat, J. I., 347
Sailer, S., 640, 720
Saint, J. H., 802
St. Mary's Hospital, Waterbury, Connecticut, Carcinoma of large bowel. Burke, J. F., 801
Salivary gland, mixed tumors. McFarland, J., 423
—— —— —— ——Sheldon, W. H., 423
—— —— —— —— metastasis. Mulligan, R. M., 639
—— —— tumor, induced. Steiner, P. E., 338
—— —— —— pseudoadenomatous basal cell carcinoma of tongue. Lampe, I., 639
Sallick, M. A., *et al.,* 806
Salmonella typhimurium toxin effect on tumors. Zahl, P. A., *et al.,* 710
Salter, W. T. *See* Roskelley, R. C., **131
Saltzman, M. *See* Sloane, P., 637
Samson, P. C., *et al.,* 725
Sanarelli myxoma, virus, infections. Houlihan, R. B., 708
Sandweiss, D. J. *See* Schindler, R., 214
Sanes, S., *et al.,* 565
Sanford, H. E. *See* Kimball, T. S., 563
Santy, P., *et al.,* 725
Saphir, O., *et al.,* 418, 424, 797
—— **and Appel, M.** Attempts to abrogate immunity to the Brown-Pearce carcinoma, *767, 881
Sapirstein, M. *See* Globus, J. H., 420
Sarcoidosis and malakoplakia of urinary bladder. Redewill, F. H., 797
Sarcoma and carcinoma in same uterus. Barnes, A. C., 807
—— breast. Hill, R. P., *et al.,* 789
—— breast, surgery at Huntington Memorial Hospital. Simmons, C. C., 562
—— choroid. Barlow, A., 788
—— degeneration of Paget's disease. Schajowicz, F., 727
—— derived from fibroblasts treated with 20-methylcholanthrene *in vitro.* Nettleship, A., 711
—— duodenum, primary, resection with head of pancreas by one stage Whipple operation. Bisgard, J. D., *et al.,* 722
—— **Ewing's.** Bianchi, A., *et al.,* 804
—— —— Roberts, C. P., 644
—— —— hip disarticulation. Smith, B. C., 804
—— —— of sacrum, irradiation. Sloat, J. I., *et al.,* 347
—— idiopathic multiple hemorrhagic, of Kaposi, on eyelid. Graham, T. N., 717
—— factor extractable from transplanted fibrosarcomas. Aptekman, P. M., King, H. D., and Lewis, M. R., *856, 877
—— in myositis ossificans. Pack, G. T., *et al.,* 566
—— —— uterine fibromyoma. Goldberger, M. A., 884
—— iris. McKee, S. H., 718
—— Kaposi's. Aergerter, E. E., *et al.,* 647
—— kidney. Davidson, B., 797
—— leukosis, agent, relation of antigen of chemically induced chicken tumor. Gottschalk, R. G., *649, 785
—— metastases, stilbestrol and deep x-rays. Binnie, G. G., 643
—— metastatic melanotic, to ileum, causing intussusception. Phillips, J. R., 642
—— mouse, hemorrhage caused by bacterial polysaccharide. Hartwell, J. L., Shear, M. J., and Adams, J. R., Jr., **122
—— neurogenic. Maseritz, I. H., 279
—— —— solitary, of mesentery. Shapiro, M. J., *et al.,* 717
—— originating in C3H mouse, immunization of mice of same line. Gross, L., *326, 417
—— osteogenic. Badgley, C. E., 144
Sarcoma, osteogenic and deer antler, comparison of growth. Aub, J. C., and Wislocki, G., **120
—— —— concomitant of industrial accident. Atsatt, R. F., 347
—— —— femur, amputation. Solley, F. W., 727
—— —— following fracture of humerus. Kirkman, J. H., 727
—— —— malignant osteoblastoma of Brachetto-Brian. Walls, J. E., 728
—— —— sternum, surgery and radiation. Cauble, W. G., 144
—— ovary, and tubal carcinoma. Gardner, H. L., *et al.,* 807
—— penis. Wheelock, M. C., *et al.,* 796
—— prostate. Melicow, M. M., *et al.,* 795
—— radiosensitivity in tissue culture. Chambers, R., and Grand, C. G., **127
—— reticulum cell, of bone. Szutu, C., *et al.,* 804
—— —— —— scapula excision. Christopher, F., 347
—— retroperitoneal, Kates, S. R., 728
—— Rous, cells cultivated *in vitro,* cytoplasmic changes. Doljanski, L., *et al.,* 882
—— —— —— —— *in vitro,* morphologic properties. Tenenbaum, E., and Doljanski, L., *585, 786
—— —— —— pure strain. Tenenbaum, E., 786
—— —— in young chicks, absence of seasonal influence. Carr, J. G., 417
—— —— No. 1, effect on growth of substances influencing cell activity. Carr, J. G., 278
—— —— virus, growth in chick embryo in absence of neoplasia. Milford, J. J., and Duran-Reynals, F., *578, 707
—— —— —— infection of turkeys and guinea fowls. Duran-Reynals, R., *569, 707
—— small intestine. Frank, L. W., *et al.,* 802
—— subcutaneous, produced by azo dye, influence of liver feeding. Turner, J. C., *et al.,* 207
—— —— —— —— tars from atmospheric dusts. Leiter, J., Shimkin, M. B., and Shear, M. J., **123, 554
—— synovial. Lazarus, J. A., *et al.,* 804
—— transplantable, effect of climate on growth. Wallace, E. W., 556
—— urinary bladder. Wheelock, M. C., 565
Sarcoma 37, hemorrhage, role of thrombocytopenia. Shimkin, M. B., *et al.,* 629
Sarcoma 180 growth, influence of vitamin B_6 and pantothenic acid. Bischoff, F., *et al.,* 628
Sarcomesothelioma, synovial (sarcoendothelioma). Fisher, H. R., 566
Satory, J. H., 424
Satterlee, R. C., 648
Sauer, H. R., 346
—— *See* Herger, C. C., 346, 794, 797
Sauer, L. W. *See* Christopher, F., 641
Saunders, J. B. deC. M. *See* Anderson, C. E., 280
Saward, E. W., 566
Saxton, J. A., Jr. *See* Flory, C. M., *729, 880
Scalp, nevus verrucosus, and teratoid tumor of conjunctiva. Sherman, A. R., 789
Scapula excision, reticulum cell sarcoma. Christopher, F., 347
Scarff, R. W., *et al.,* 421
Schaffner, V. D., *et al.,* 640
Schajowicz, F., 727
Schartum-Hansen, H. *See* Evensen, O. K., 347
Schattenberg, H. J. *See* Collins, C. G., 211
—— *See* Harris, W. H., 639
Schatzki, R., *et al.,* 714
Scheffey, L. C., 720
Schenken, J. R., *et al.,* 213
—— **and Burns, E. L.** Spontaneous primary hepatomas in mice of strain C3H. III. The effect of estrogens and testosterone propionate on their incidence, *693, 785
—— *See* Burns, E. L., *691, *697, 785 (2 abs)
Schiff, F., *et al.,* 350
Schiff, L. *See* Shapiro, N., 280
Schiller, W., 346, 563
Schindler, R., *et al.,* 214 (4 abs)
Schleussner, R. C. *See* Carlucci, G. A., 279
Schlicke, C. P. *See* Mayo, C. W., 724
Schmidt, E. A., 646
Schmidt, F. R. *See* Tuta, J. A., 566

Schmitz, H. E., 714
—— *See* Essenberg, J. M., 647
Schnedorf, J. G., *et al.,* 564, 728
Schneider, W. C., and Potter, V. R. Biocatalysts in cancer tissue. III. Succinic dehydrogenase and cytochrome oxidase, *353, 489
Schoental, R. *See* Berenblum, I., *145, *151, 275 (2 abs), *686, 784
Scholl, A. J., *et al.,* 565
Schreiner, B. F., *et al.,* 635
—— *See* Reinhard, M. C., 713
Schrek, R., 711
Schulte, T. L., 646
Schulte, W. G., 346
Schultz, F. H. *See* Hill, R. M., *839, *841, 879
Schulze, M., 564, 720
Schuster, F. P., *et al.,* 144
Schuster, S. A. *See* Schuster, F. P., 144
Schwannoma cells, reticulin formation *in vitro.* Murray, M. R., *et al.,* 555
—— head and neck. Ehrlich, H. E., *et al.,* 637
Schwartz, C. W., 419
Sclerosis and leukemia, produced by methylcholanthrene in mice on restricted cystine diet. White, J., *et al.,* 707
—— tuberous, of retina, Bourneville's disease. Loewenstein, A., *et al.,* 717
Scott, G. M. *See* Russ, S., 142
Scott, L. D. *See* Shoulders, H. S., 491, 635
Scott, R. B., 720
Scott, W. W., *et al.,* 631, 798
Scrotum, cancer. Chase, P. P., 715
Sea urchin eggs, hypotonic cytolosis, effect of x-radiation. Grand, C. G., and Chambers, R., **127
Sebaceous gland and skin carcinogenesis. Simpson, W. L., and Cramer, W., *515, 626
—— —— tumors. Warren, S., *et al.,* 636
Selbie, F. R., 142
Selenium causing cirrhosis, liver tumors following. Nelson, A. A., Fitzhugh, O. G., and Calvery, H. O., *230, 338
Sella turcica, tumors above, relation to pars intermedia of hypophysis. MacCallum, W. G., 348
Selman, A. N., 642
Seminal vesicles, carcinoma. McCrea, L. E., 795
Seminoma in undeveloped genital anlage. Wells, H. G., 565
Serum, pregnant mare, testicular changes following long-continued injections. Pfeiffer, C. A., and Hooker, C. W., *762, 878
Sesame oil, heated, possible carcinogenicity. Steiner, P. E., Steele, R., and Koch, F. C., *100, 207
Shack, J., 628
Shaffer, J. G., 555
Shapiro, A. L. *See* Robillard, G. L., 562, 787
Shapiro, L. B., 887
Shapiro, M. J., *et al.,* 717
Shapiro, N., *et al.,* 280
Sharp, D. G., *et al.,* 556
—— *See* Bernheim, F., 210
Sharpless, G. R. Diet and epithelial hyperplasia in the forestomach of rats and mice, *108, 210
—— *et al.,* 417
Shaw, R., 279
Shay, H. *See* Gershon-Cohen, J., 418
Shear, M. J. *See* Andervont, H. B., 70
—— *See* Fishman, M., 206
—— *See* Hartwell, J. L., **122
—— *See* Leiter, J., **123, 554 (2 abs), 706
Shearburn, E. W., 214
Sheldon, W. H., 423
Sherman, A. R., 789
Sherwood, M. W., *et al.,* 564
Shimkin, M. B., *et al.,* 207, 276, 629, 632, 886
—— *See* Andervont, H. B., 559
—— *See* Bryan, W. R., 341, 706
—— *See* Leiter, J., 554
—— *See* Lorenz, E., 337
Shipley, A. M. *See* Brantigan, O. C., 722
Shope fibroma. *See* Fibroma
Shoulders, H. S., *et al.,* 491, 635
Shulman, A. *See* Marx, R., 878
Sigmoid. *See* Intestine, large
Silvers, H. I., 726
Simmonds' disease caused by intracranial tumors. Moss, R. E., 493
Simmons, C. C., 562
Simon, H. J., 792
Simon, L. G. *See* Twombly, G. H., 728
Simonds, J. P., 728
Simons, E. J., 721
Simpson, E. E., 564
Simpson, F. E., *et al.,* 344
Simpson, W. L., and Cramer, W. Fluorescence studies of carcinogens in skin. I. Histological localization of 20-methylcholanthrene in mouse skin after a single application, *362, 487
—— **and** —— Further observations on skin carcinogenesis by a single application of 20-methylcholanthrene, *604, 706
—— **and** —— Sebaceous glands and experimental skin carcinogenesis in mice, *515, 626
Sims, J. L., 640
Sinus, cavernous, tumor infiltration, in acromegaly. Spark, C., *et al.,* 567
Siris, J. H., *et al.,* 345
Sisk, I. R., *et al.,* 796
Sivertsen, I. *See* Visscher, M. B., 627
Skin, action of 5,9,10-trimethyl-1,2-benzanthracene. Hartwell, J. L., *et al.,* 554
—— and liver tumor metabolism. Dickens, F., and Weil-Malherbe, H., *73, 209
—— —— subcutaneous tissue metastases, primary stomach carcinoma. Stein, J. J., 642
—— carcinogenesis and sebaceous glands. Simpson, W. L., and Cramer, W., *515, 626
—— —— methylcholanthrene, influence of colchicine. Paletta, F. X., *et al.,* 210
—— —— —— evaluation of. Cramer, W., and Stowell, R. E., *668, 784
—— —— —— —— of estradiol benzoate. Paletta, F. X., *et al.,* 276
—— —— —— microscopic tissue changes. Cramer, W., *et al.,* 206
—— —— —— osteosis cutis. Stowell, R. E., *et al.,* 338
—— —— —— single application. Cramer, W., and Stowell, R. E., *36, 140
—— —— —— single application. Simpson, W. L., and Cramer, W., *604, 706
—— —— —— technic and macroscopic changes. Cramer, W., *et al.,* 206
—— —— photometric histochemical determination of thymonucleic acid. Stowell, R. E., 488
—— carcinoma. Ronchese, F., 715
—— —— radiation. Peterson, V. L., 788
—— —— rate and periodicity of mitotic activity. Blumenfeld, C. M., 630
—— cells and tissues, irradiation. Harvey, W. F., 419
—— distribution of fluorescence of 3,4-benzpyrene *in vivo.* Doniach, I., *et al.,* 626
—— epithelioma, histology. Sutton, R. L., Jr., 143
—— hyperplastic, enhanced effectiveness of papilloma virus. Friedewald, W. F., 556
—— ichthyosiform atrophy, in Hodgkin's disease. Ronchese, F., 806
—— iron and ascorbic acid influenced by limited methylcholanthrene application. Carruthers, C., *et al.,* 555
—— lipid-protein nitrogen ratio reduced by single methylcholanthrene application. Wicks, L. F., *et al.,* 555
—— manifestations of internal malignant tumors. Becker, S. W., *et al.,* 349
—— metastases from bladder tumors. Atkinson, R. C., 346
—— methylcholanthrene action, chemical studies. Carruthers, C., and Suntzeff, V., *744, 877
—— myoblastoma. Tuta, J. A., *et al.,* 566
—— myosarcoma. Maynard, M. T.-R., 562
—— penetration of ultraviolet radiation as factor in carcinogenesis. Kirby-Smith, J. S., *et al.,* 208

Skin, separation of epidermis from dermis. Baumberger, J. P., *et al.,* 210
—— —— irradiation therapy. Greenberger, E. D., 787
—— sodium and calcium, effect of methylcholanthrene. Suntzeff, V., *et al.,* 555
—— tumors induced by ultraviolet radiation. Grady, H. G., Blum, H. F., and Kirby-Smith, J. S., **128, 208
—— tunnel, for keeping substances in contact with skin. Plaut, A., and Kohn-Speyer, A. C., *176, 278
Skinner, E. H., 215
Skinner, H. L. *See* Gentile, R. J., 646
Slaughter, D. P., *et al.,* 215
Sloane, P., *et al.,* 637
Sloat, J. I., *et al.,* 347
Slocum, Y. K., 717
Smedal, M. I., 714
Smegma, human, and 3,4-benzpyrene applied to vagina and cervix, carcinogenicity. Fishman, M., 206
Smeltzer, M., 792
Smiley, I., *et al.,* 792
Smiley, K. E., 642
Smith, A. H. *See* Cahill, W. M., *830, 879
Smith, A. M., Jr., 807
Smith, B. C., 804
Smith, C. P. *See* Scarff, R. W., 421
Smith, F. R., 793
Smith, G. Van S., 564
Smith, J. T., *et al.,* 793
Smith, L. W. *See* Peale, A. R., 563
Smith, R. P. *See* Schaffner, V. D., 640
Smith, T. E., 424
Smith, W. M. *See* Schindler, R., 214
Smithers, D. W. *See* Ledlie, R. C. B., 805
Snake pancreas, neoplastic disease. Ratcliffe, H. L., 632
Snead, L. O. *See* Hodges, F. M., 71
Snell, A. M. *See* Robertson, H. E., 727
Snell, G. D., and Cloudman, A. M. The effect of rate of freezing on the survival of fourteen transplantable tumors of mice, *396, 490
Sniderman, H. R., 789
Snyder, H. E., 642
Snyder, J. M., 726
Sodium and calcium, epidermal, effect of methylcholanthrene. Suntzeff, V., *et al.,* 555
—— pentobarbital, paradichlorbenzene, amyl acetate, and sovasol, effect on induced resistance to transplanted rat leukemia. Murphy, Jas. B., and Sturm, E., *173, 278
Soiland, A., 419
Solley, F. W., 727
Sollod, B. W. *See* Ginsberg, S. T., 723
Sommer, G. N. J., Jr., *et al.,* 804
Soper, G. R., *et al.,* 800
South African Institute for Medical Research, 648
Sovasol, sodium pentobarbital, paradichlorbenzene, and amyl acetate, effect on induced resistance to transplanted rat leukemia. Murphy, Jas. B., and Sturm, E., *173, 278
Spaeth, E. B., 718
Spangler, J. M., *et al.,* 559
—— *See* Burk, D., **130, 560
Spark, C., *et al.,* 567
Spector, H. I. *See* Werner, A. A., 565
Spectrochemistry, estrogen-induced mammary cancer. Strait, L. A., McCawley, E. L., and Perry, I. H., *370, 489
—— —— —— —— distribution of triphenylethylene. Perry, I. H., Strait, L. A., and McCawley, E. L., *378, 489
—— serum magnesium rise during hypothermia. Steadman, L. T., Ariel, I., and Warren, S. L., *471, 557
Spectrography, carcinogenic hydrocarbons and conjugated proteins. Jones, R. N., and Creech, H. J., **134
—— ultraviolet, fat fraction of mouse milk and mammary glands. DeOme, K. B., 558
Speed, K., 424
Speed, T. *See* Sherwood, M. W., 564
Speer, F. D. *See* McGavack, T. H., 645
Spencer, F. *See* Rogers, H., 562
Spencer, R. R., *et al.,* 70, 415
Spencer, R. R., and Melroy, M. B. Some observations on the mechanism of species adaptation to carcinogens, **129
Sperm, frog, radiation producing growth lesions. Henshaw, P. S., **127, 709
Spermatic cord, angioendothelioma. Prince, C. L., 213
—— —— lipomyoma. Strong, G. H., 564
—— —— tumor. Marshall, V. F., 564
—— —— —— Schulte, W. G., 346
Sphenoid ridge, meningiomas causing exophthalmos, surgery. Barens, S. N., 715
—— sinus and sella, chondroma, transseptal removal. Soper, G. R., *et al.,* 800
Sphincter disturbances and limb weakness in spinal cord compression. Friedman, A. P., 716
Spinal canal, mixed tumors. French, L. A., *et al.,* 493
Spinal column, giant cell tumor. Coray, Q. B., 280
—— —— metastatic cancer. Toumey, J. W., 644
Spinal cord and brain tumors in children, radiation. Mandeville, F. B., 788
—— —— cauda equina, tumors in region. Cohen, I., *et al.,* 636
—— —— cervical, neurofibroma. Macnab, G. H., 637
—— —— compression, aberrant thyroid tumor of vertebrae. Denker, P. G., *et al.,* 643
—— —— —— sphincter disturbances and limb weakness. Friedman, A. P., 716
—— —— degeneration and leukemic manifestations, associated with multiple myeloma. Lindeboom, G. A., *et al.,* 347
—— —— epidermoids and dermoids. Craig, R. L., 716
—— —— meningiomas. Brown, M. H., 492
—— —— —— Buchstein, H. F., 715
—— —— multiple primary tumors. Lichtenstein, B. W., 568
—— —— tumor. Warren, V. C., *et al.,* 717
—— —— —— extramedullary, primary and secondary. Elsberg, C. A., 884
—— —— —— laminectomy. Echols, D. H., 420
—— —— —— large intramedullary, ependymoma. Baker, G. S., *et al.,* 715
—— —— vascular malformations and vascular tumors. Turner, O. A., *et al.,* 637
Spitz, S. *See* Zahl, P. A., 629
Spleen, calcified cystic tumor. Culver, G. J., *et al.,* 645
—— cancer, secondary. Herbut, P. A., *et al.,* 348
—— hemangioma. Pines, B., *et al.,* 348
—— in leukemias. Krumbhaar, E. B., *et al.,* 347
—— multiple microcystic lymphangioma. Tomlinson, W. J., 806
—— thymus, and lymph nodes, radiation effects. Warren, S., *et al.,* 345
Spontaneous neoplasms in mice. Lippincott, S. W., *et al.,* 561
Sprague, J. S. *See* Albright, H. L., 640
Sprague, R. G., *et al.,* 645
Sprince, H. *See* Burk, D., **121, 560
Squamous cell carcinoma, and dermoid cyst of ovary. Brody, S., 791
—— —— —— bovine horn. Frank, E. R., *et al.,* 786
—— —— —— transplantable, in rabbit. Greene, H. S. N., and Brown, W. H., *53, 142
—— —— epithelioma, gall bladder. Wiig, L. M., *et al.,* 727
Stabins, S. J., *et al.,* 638
Stafford, D. E. *See* Baker, G. S., 715
Staining technic, supravital, in study of lymphosarcomas. Hu, C. H., *et al.,* 347
Steadman, L. T., Ariel, I., and Warren, S. L. Studies on the effect of hypothermia. IV. The rise of serum magnesium in rabbits during the hypothermic states as shown by the spectrochemical method, *471, 557
Steel, J. *See* Loewenstein, A., 717
Steele, R. *See* Steiner, P. E., *100, 207
Stein, J. J., 642, 722
Stein, R. J., 418, 644
Stein, W., 807
Steinberger, L. *See* Twombly, G. H., 728
Steiner, P. E., 338, 488, 707

Steiner, P. E. The incidence of a carcinogenic factor in the livers of cancer, noncancer, cirrhotic, and Negro patients, **125, *385, 488
—— **Steele, R., and Koch, F. C.** The possible carcinogenicity of overcooked meats, heated cholesterol, acrolein, and heated sesame oil, *100, 207
—— *See* Adams, W. E., 279, 639
Stengel, A. *See* Krumbhaar, E. B., 347
Sterling, H. W., 714
Stern, K., *et al.,* 717
—— *See* Belkin, M., *164, 277
Sternum, metastatic lesions. Macey, H. B., *et al.,* 644
Steroids, antifibromatogenic action, and experimental fibroids. Lipschütz, A., 208
—— urinary, from breast cancer patients. Hill, B. R., *et al.,* 878
Stevens, R. H., 636
Stewart, H. L., *et al.,* 554
—— **and Lorenz, E.** Adenocarcinoma of the glandular stomach in mice injected with 20-methylcholanthrene, **123
—— *See* Fishman, M., 206
—— *See* Greenstein, 339
—— *See* Hartwell, J. L., 554
—— *See* Lippincott, S. W., 561
—— *See* Lorenz, E., **123
—— *See* White, J., 554
Stilbestrol and deep x-rays for sarcomatous metastases. Binnie, G. G., 643
—— —— intracapsular orchiectomy for prostatic carcinoma. Chute, R., *et al.,* 422
—— mammary and testicular tumors, effect of foster nursing. Shimkin, M. B., *et al.,* 276
—— —— tumor. Biden, W. M., 884
—— prostatic carcinoma, effect on metastasis. Weller, C. G., 796
—— workers, proliferative mastitis. Scarff, R. W., 421
Stohr, G., 568
Stomach adenocarcinoma, gastrectomy. Campbell, D. C., 722
—— and esophagus carcinoma, resection. Meyer, H. W., 725
—— —— hepatic lesions after heated lard feeding. Lippincott, S. W., Morris, H. P., and Larsen, C. D., **128
—— —— intestine tumors, spontaneous, in guinea pigs. Papanicolaou, G. N., *et al.,* 343
—— —— ulcerating, meniscus complex in roentgenologic diagnosis. Kirklin, B. R., 71
—— cardiac end, stellate impression simulating tumor. Hodges, F. M., 71
—— gastroscopy in diagnosis. Cooper, K. G., 280
—— glandular, adenocarcinoma induced by 20-methylcholanthrene. Stewart, H. L., and Lorenz, E., **123
—— —— transplanted adenocarcinoma from, enzymatic activity. Greenstein, J. P., *et al.,* 339
—— hemangioma. Morton, C. B., *et al.,* 642
—— leiomyoma malignum. Christopher, F., *et al.,* 641
—— leiomyosarcoma, ulcerated, hemorrhagic, partial gastrectomy. White, R. R., *et al.,* 726
—— lesions produced by fasting, partial inanition, and dietary deficiency. Morris, H. P., *et al.,* 340
—— —— remote induction by methylcholanthrene. Strong, L. C., Collins, V. J., and Durand, E. A., *21, 141
—— lipoma, causing hemorrhage. Cattell, R. B., 641
—— lymphosarcoma. O'Donoghue, J. B., *et al.,* 347
—— —— Yarnis, H., 886
—— —— with perforation, resection. Doran, W. T., *et al.,* 723
—— malignant lesions. Walters, W., 803
—— mucosa as endocrine gland. Abrahamson, R. H., *et al.,* 424
—— —— polypoid, prolapse into duodenum with malignant change. Rubin, J. S., 214
—— multiple polyposis. Pearl, F. L., *et al.,* 642
—— pyloric, adenocarcinoma, and other gastric neoplasms induced with carcinogenic hydrocarbons. Stewart, H. L., *et al.,* 554
—— teratoma, complex tridermal, benign. Selman, A. N., 642
—— carcinoma. Gray, H. K., 641
—— —— Held, I. W., *et al.,* 641
Stomach carcinoma. Hibbard, J. S., 641
—— —— Horsley, G. W., 723
—— —— Horsley, J. S., 802
—— —— Hunt, V. C., 723
—— —— Lahey, F. H., 642
—— —— Levin, A. E., 344
—— —— Priestley, J. T., 725
—— —— Snyder, H. E., 642
—— —— Walker, R. H., 803
—— —— anacidity and gastritis. Schindler, R., *et al.,* 214
—— —— and atrophic gastritis. Shapiro, N., *et al.,* 280
—— —— —— peptic ulcer, blood histamine. Shimkin, M. B., *et al.,* 886
—— —— —— pernicious anemia. Hagyard, C. E., 802
—— —— Billroth I operation. Friedell, M. T., 723
—— —— gastrectomy. Lynch, R. C., *et al.,* 724
—— —— —— total. Morton, C. B. II., 214
—— —— —— —— Peikoff, S. S., 725
—— —— —— —— Saint, J. H., 802
—— —— —— —— and partial esophagectomy, in aged. Waugh, J. M., *et al.,* 726
—— —— gastroscopic and roentgenologic diagnosis. Templeton, F. E., 72
—— —— geographic distribution in States of Union. Cramer, W., **126
—— —— in aged, surgery. Bowers, R. F., 640
—— —— metastases to skin and subcutaneous tissue. Stein, J. J., 642
—— —— misconceptions. Hinton, J. W., 802
—— —— portion proximal to esophagus, transthoracic resection. Phemister, D. B., 280
—— —— regional lymphatic metastases. Coller, F. A., *et al.,* 801
—— —— relation of atrophic gastric mucosa. Jankelson, I. R., *et al.,* 641
—— —— —— of ulcerative gastritis. Judd, E. S., Jr., 214
—— —— superficial spreading type. Stout, A. P., 803
—— tumor. Collins, V. J., Gardner, W. U., and Strong, L. C., *29, 140
—— —— benign. Dudley, G. S., *et al.,* 641
—— —— —— Finesilver, E. M., 723
—— —— —— submucosal. Schindler, R., *et al.,* 214
—— —— carcinoid. Lemmer, K. E., 724
—— —— induction attempts with cholesterol heated to 300° C. Kirby, A. H. M., *519, 627
—— —— relationship of surgery and gastroscopy. Schindler, R., *et al.,* 214
—— ulcer and carcinoma and duodenal ulcer, chronic gastritis. Hebbel, R., 641
—— —— —— —— in Middle Ages, Avenzoar, Averroës, Franciscus of Piedmont, Benivieni. Goldstein, H. I., 802
—— —— benign and malignant, gastroscopic differential diagnosis. Schindler, R., *et al.,* 214
—— —— carcinomatous. Walters, W., 803
—— —— lymphosarcomatous, perforation. Koucky, J. D., *et al.,* 724
—— —— relation to cancer. Allen, A. W., *et al.,* 722
Stone, E., 796
Stone, H. B., *et al.,* 424
Stone, R. S., *et al.,* 636
—— *See* Low-Beer, B. V. A., 635
Stout, A. P., *et al.,* 423, 642, 722, 803, 887
—— *See* Hill, R. P., 789
—— *See* Horn, R. C., Jr., 637
—— *See* Murray, M. R., 211, 555
Stowell, R. E., *et al.,* 338, 488
—— *See* Cramer, W., *36, **123, 140, 206 (2 abs), *668, 784
Strait, L. A., McCawley, E. L., and Perry, I. H. A spectrochemical study of estrogen-induced mammary cancer in mice. I. Chemical preparation of tissue and analysis by spectrophotometry, *370, 489
—— *See* DeOme, K. B., 558
—— *See* Perry, I. H., *378, 489
Strauss, H. *See* McGoldrick, J. L., 563
Striatothalamic tumors. Globus, J. H., *et al.,* 420
Strock, M. S., 567
Strohm, J. G., 796

Stromme, W. B., *et al.,* 564
Strong, G. H., 564 (2 abs)
Strong, L. C., Collins, V. J., and Durand, E. A. A genetic analysis of the induction of tumors by methylcholanthrene. IV. The probable remote induction of various types of gastric lesions, *21, 141
—— *See* Burdette, W. J., *13, 141
—— *See* Collins, V. J., *29, 140
—— *See* Kirschbaum, A., 560
Strontium, radioactive, metabolic studies on bone neoplasm. Treadwell, A. deG., *et al.,* 344
—— —— therapy in leukemia. Low-Beer, B. V. A., *et al.,* 635
Struma ovarii. Sailer, S., 720
Stuckert, B. G., 712
Sturgis, M. C. *See* Macfarlane, C., 808
Sturm, E. *See* Murphy, J. B., *173, 278
Submaxillary gland, mixed tumor, massive. Wilson, H., 423
Succinoxidase system, inhibition by tumor extracts. Albaum, H. D., and Potter, V. R., *303, 416
Sugarbaker, E. D. *See* Cattell, R. B., 641
Sugiura, K., 488
—— **Kensler, C. J., and Rhoads, C. P.** Protection against the carcinogenic action of *p*-dimethylaminoazobenzene by liver and yeast fractions, **130
—— *See* Burk, D., **130
—— *See* Kensler, C. J., *823, 880
—— *See* Zahl, P. A., 629
Sulfanilylguanidine in surgery. Firor, W. M., *et al.,* 723
Sulfhydryl groups in normal and tumorous hepatic tissue extracts before and after addition of salts. Greenstein, J. P., 416
Sulfur, compounds containing, effect on initiation of mitosis in *Amoeba proteus.* Chalkley, H. W., 141
Sullivan, T. J., *et al.,* 213
Sulman, F. *See* Zondek, B., *198, 278
Sumner, W. A., *et al.,* 798
Sundstroem, E. S., *et al.,* 494
Suntzeff, V., and Carruthers, C. The effect of methylcholanthrene upon epidermal sodium and calcium, *431, 555
—— *See* Baumberger, J. P., 210
—— *See* Carruthers, C., 555, *744, 877
—— *See* Loeb, L., 70
—— *See* Wicks, L. F., 555
Sussman, M. L., *et al.,* 636
Sutherland, C. G., 72
Sutton, R. L., Jr., 143
Swain, G., *et al.,* 207
Swann, W. A., Jr. *See* Riley, A., *et al.,* 797
Sweetser, T. H., 349
Swenson, P. C., 788
Swineford, O., *et al.,* 279
Symmers, D., 348
Sympathicoblastoma, adrenal, ocular findings. Bothman, L., *et al.,* 717
—— in newborn. Moore, M. R., *et al.,* 716
—— presacral, infant, urinary obstruction. Hepler, A. B., 788
—— retroperitoneal, without adrenal gland involvement. Drake, R. L., *et al.,* 279
—— right adrenal. Hyams, J. A., *et al.,* 806
Sympathogonioma, mediastinal. Sailer, S., 640
Synovial membrane, origin, malignant tumors. Briggs, C. D., 887
—— —— sarcoma. Lazarus, J. A., *et al.,* 804
—— —— sarcomesothelioma (sarcoendothelioma). Fisher, H. R., 566
Syverton, J. T., Wells, E. B., and Berry, G. P. The failure of methylcholanthrene accelerate the papilloma-to-cancer sequence in virus-induced papillomas on cottontail rabbits, **124
Szutu, C., *et al.,* 804

Takata reaction in multiple myeloma. Hafström, T., 144
Tamis, A. B., *et al.,* 793
Tannenbaum, A. The use of diets varying in calories as a means of studying the stages of carcinogenesis, **129
Tar, carcinogenic, produced by cholesterol pyrolysis. Roffo, A. H., 706
—— from atmospheric dusts producing subcutaneous sarcomas. Leiter, J., Shimkin, M. B., and Shear, M. J., **123, 554
—— —— city dusts producing tumors. Leiter, J., *et al.,* 554
Taylor, A., *et al.,* 490, 556 (2 abs)
—— **Hungate, R. E., and Taylor, D. R.** Yolk sac cultivation of tumors, *537, 629
—— *See* Taylor, D. R., *542, 629
Taylor, A. R. *See* Bernheim, F., 210
—— *See* Sharp, D. G., 556
Taylor, D. R., McAfee, M., and Taylor, A. The effect of yolk sac-cultivated tumors on the hemoglobin level in the embryonic chick, *542, 629
—— *See* Taylor, A., *537, 629
Taylor, G. W., 633
Taylor, H. C., Jr., Mecke, F. E., and Twombly, G. H. Extrogen and 17-ketosteroid excretion in patients with breast carcinoma, **131, *180, 276
Taylor, H. E. *See* Schaffner, V. D., 640
Taylor, J. S. *See* Poley, P. P., 786
Taylor, W. N., *et al.,* 348
Taylor, W. R. *See* Barden, R. P., 647
Teahan, R. W., *et al.,* 344, 422
Temperature effect upon ultraviolet carcinogenesis with wave lengths 2,800–3,400 Å. Bain, J. A., Rusch, H. P., and Kline, B. E., *610, 708
—— high, and moccasin venom effect on viability of lymphocytes and polymorphonuclear leukocytes. Schrek, R., 711
—— —— exposure of bacteria, effect of carcinogens. Spencer, R. R., 415
—— low, body, effects on methylcholanthrene fibrosarcomas. Hill, R. M., Rutledge, E. K., Ware, A. G., Schultz, F. H., and Livingston, W. H., *841, 879
—— —— local, in genital cancer. Gordon, C. A., *et al.,* 791
—— —— production. Hill, R. M., Ware, A. G., and Schultz, F. H., *839, 879
—— —— prolonged, physical and physiological changes. Ariel, I., Bishop, F. W., and Warren, S. L., *448, 556
—— —— rise of serum magnesium shown by spectrochemistry. Steadman, L. T., Ariel, I., and Warren, S. L., *471, 557
—— —— role of thyroid. Ariel, I., and Warren, S. L., *454, 557
—— —— short period, effect on Brown-Pearce epithelioma. Ariel, I., and Warren, S. L., *464, 557
Templeton, F. E., *et al.,* 72
Tendon sheaths, tumors. Charache, H., 887
Tenenbaum, E., 786
—— **and Doljanski, L.** Studies on Rous sarcoma cells cultivated *in vitro.* II. Morphologic properties of Rous sarcoma cells, *585, 786
—— *See* Doljanski, L., 882
Tenenbaum, J., 346
Teratoma, complex tridermal, benign, of stomach. Selman, A. N., 642
—— conjunctiva, and nevus verrucosus of scalp. Sherman, A. R., 789
—— epidermoid, and dermoid of central nervous system. Peyton, W. T., *et al.,* 493
—— ovary, in young girl. Smeltzer, M., 792
Testis and mammary tumor induction in mice injected with stilbestrol, effect of foster nursing. Shimkin, M. B., *et al.,* 276
—— changes resembling early interstitial cell tumors, after long-continued injections of pregnant mare serum. Pfeiffer, C. A., and Hooker, C. W., *762, 878
—— dermoid cysts. Dockerty, M. B., *et al.,* 212
—— embryonal cell carcinoma, in infant. Briele, H. A., 793
—— —— —— —— with pulmonary metastases, radiation. Hare, H. F., 634
—— epididymis and prostate, lymphosarcoma. Tenenbaum, J., 346
—— —— rhabdomyosarcoma. Strong, G. H., 564
—— interstitial cell growths. Warren, S., *et al.,* 564
—— lymphosarcoma. Dockerty, M. B., *et al.,* 345
—— neoplastic diseases in animals. Innes, J. R. M., 418
—— rhabdomyosarcoma. Prince, C. L., 213

Testis tumors. Day, M. L., 794
—— —— Fetter, T. R., 422
—— —— assay of urinary gonadotropin. Main, R. J., 795
—— —— hormone determination. Kiefer, J. H., 346
—— —— —— excretion in urine. Ferris, D. O., 794
—— —— in mice receiving triphenylethylene. Gardner, W. U., *92, 208
—— —— of interstitial cell origin producing pubertas praecox. Werner, A. A., *et al.*, 565
—— —— malignant. Rosenblatt, P., *et al.*, 422
—— —— —— in pseudohermaphrodites. Gilbert, J. B., 422
—— —— spontaneous, in mice. Gardner, W. U., *757, 878
—— —— tunica vaginalis and epididymis. Mackay, C. H., 795
—— tunica vaginalis, and uterine and tubal serosa, mesotheliomas. Evans, N., 647
—— undescended, intraabdominal, with torsion of cord and embryonic cell carcinoma. Whittington, C. T., 565
—— —— malignant growth. Campbell, H. E., 212
Testosterone, estrogen, and progesterone effects on benign mammary tumors. Heiman, J., *65, 141
—— **methyl** —— peroral, in benign prostatic hypertrophy. Markham, M. J., 795
—— propionate and estrogen effect on incidence of spontaneous hepatomas. Schenken, J. R., and Burns, E. L., *693, 785
Thacker, J. *See* Taylor, A., 556
Thecoma. *See* Ovary
Thibaudeau, A. A. *See* Burke, E. M., **133
Thigh, lipoma. Coventry, M. B., *et al.*, 647
—— —— intermuscular. Arenas, N. A. R., 804
Thompson, G. G., 720
Thompson, G. J., 213
Thompson, J. S. *See* Simpson, F. E., 344
Thompson, J. W. *See* Greenstein, J. P., 339, 628
—— *See* Mayer, M. E., 628
Thorax and neck, tumors, nonneoplastic disease, and foreign bodies, demonstration by body section roentgenography. Young, B. R., 420
—— neoplasms. Alexander, J., 721
—— surgery. Churchill, E. D., 493
—— wall, bony, neoplasms. Sommer, G. N. J., Jr., *et al.*, 804
—— —— fibrosarcoma following trauma. Blake, J. M., *et al.*, 639
Throat and nose tumors. New, G. B., *et al.*, 800
Thrombocytopenia, role in hemorrhage produced in sarcoma 37. Shimkin, M. B., *et al.*, 629
Thrombosis, otitic, of cerebral sinuses and veins simulating multiple brain tumors. Keschner, M., *et al.*, 493
Thrombus, obturator, right pulmonary artery, and ischemic necrosis of entire lung with hilar bronchogenic carcinoma. Behrents, E. G., 279
Thurston, J. A. *See* Warren, V. C., 717
Thymonucleic acid, photometric histochemical determination in epidermal carcinogenesis. Stowell, R. E., 488
—— —— synthesis, inhibition by radiation. Mitchell, J. S., 415
Thymonucleodepolymerase activity in normal and tumor tissues. Greenstein, J. P., 70
Thymus, spleen, and lymph nodes, radiation effects. Warren, S., *et al.*, 345
—— tumor. Wade, J. L., *et al.*, 807
—— —— excision in myasthenia gravis. Campbell, E., *et al.*, 567
—— —— malignant, excision in myasthenia gravis. Turnbull, F., 567
Thyroid adenoma, toxic, with hypothyroidism. Beverly, S. S., 807
—— and heart metastasis from kidney carcinoma. Dublin, W. B., 797
—— carcinoma. Smith, A. M., Jr., 807
—— —— Wikle, H. T., *et al.*, 349
—— —— in dogs. McClelland, R. M., 882
—— lateral aberrant. Franz, V. K., *et al.*, 887
—— —— —— tumors. Cattell, R. B., 887
—— —— storage of radioactive iodine in metastasis from. Keston, A. S., *et al.*, 344
—— effect in hypothermia. Ariel, I., and Warren, S. L., *454, 557
Thyroid tumor, aberrant, of vertebrae, with compression of cord. Denker, P. G., *et al.*, 643
—— —— affecting parathyroids. Toone, W. M., 807
—— —— malignant. Boone, C., 349
Tibia, adamantinoma. Dockerty, M. B., 280
Tice, G. *See* Neff, F. C., 645
Tietz, H. G. *See* Zondek, B., *198, 278
Tillisch, J. H., *et al.*, 796
Tissue culture, cells from peritoneal and pleural effusions. Coman, D. R., *526, 630
—— —— embryonic and malignant cells, permeability and metabolism. Cohn, W. E., and Brues, A. M., **135
—— —— liver tumors, effects of split products of *p*-dimethylaminoazobenzene. Kopac, M. J., Cameron, G., and Chambers, R., *290, 413
—— —— —— —— induced by *p*-dimethylaminoazobenzene, effects of *N,N*-dimethyl-*p*-phenylenediamine. Cameron, G., Kopac, M. J., and Chambers, R., *281, 413
—— —— malignant lymph nodes, effect of *N,N,N′,N′*-tetramethyl-*o*-phenylenediamine and other compounds. Chambers, R., Cameron, G., and Kopac, M. J., *293, 414
—— —— pleural mesothelioma. Stout, A. P., *et al.*, 423
—— —— radiosensitivity of sarcoma. Chambers, R., and Grand, C. G., **127
—— —— Rous sarcoma cells, cytoplasmic changes. Doljanski, L., *et al.*, 882
Tittler, I. A., *et al.*, 488
Tobacco smoke and lung cancer. Grace, E. J., 721
—— —— effects of breathing, on mice. Lorenz, E., Stewart, H. L., Daniel, J. H., and Nelson, C. V., **123
Todd, A. R. *See* Swain, G., 207
Todd, M. H., 807
Tollman, J. P., *et al.*, 646
—— *See* Brown, W. E., 345
1-o-Tolylazo-2-naphthylamine (yellow O.B.), failure to produce neoplasms. Sugiura, K., 488
Tomarelli, R. *See* György, P., 555
Tomlinson, W. J., *et al.*, 347, 806
Tompkins, V. N. *See* Warren, S., 562
Tongue carcinoma. Havens, F. Z., 799
—— —— radiation treatment. Richards, G. E., 72
—— cystic tumor. Duncan, G. W., *et al.*, 346
—— pseudoadenomatous basal cell carcinoma. Lampe, I., 639
Tonsil and uvula papilloma. Henner, R., 799
Toone, W. M., 807
Toumey, J. W., 644
Trabucco, A., 885
Trachea, cancer, fifteen years after treatment for cancer of larynx. Watson, W. L., 423
Trachtenberg, W. *See* Romano, S. A., 642
Tracy, M. M. *See* Brues, A. M., **136
Transplantation, adenocarcinoma, growth. Hoffman, J. G., Goltz, H. L., Reinhard, M. C., and Warner, C. G., *237, 341
—— —— of glandular stomach, enzymatic activity. Greenstein, J. P., *et al.*, 339
—— —— —— mammary gland, rate of growth. Hoffman, J. G., Goltz, H., and Warner, S., **126
—— and induction of tumors in rats, morphology of peripheral blood. Dunning, W. F., and Reich, C., *266, 342
—— embryonal nephromas, in rabbit. Greene, H. S. N., *434, 561
—— fibrosarcomas, sarcoma factor extractable. Aptekman, P. M., King, H. D., and Lewis, M. R., *856, 877
—— frog kidney carcinoma, into tadpole tails, growth and regression. Briggs, R., and Grant, R., *613, 710
—— hepatomas, and normal, regenerating, and fetal liver, enzymatic activity. Greenstein, J. P., *et al.*, 416
—— —— creatine and creatinine content. Greenstein, J. P., 555
—— —— not degrading cystine. Greenstein, J. P., 709
—— —— spontaneous. Edwards, J. E., *et al.*, 343
—— heterologous, embryonic mammalian tissues. Greene, H. S. N., *809, 881
—— —— human pseudomyxoma peritonei into mice and rats. Zondek, B., Mandl, F., Sulman, F., Brezezinski, A., and Tietz, H. G., *198, 278

Transplantation, leukemia, effect of foster nursing. Law, L. W., **125
—— —— effect on resistance of sodium pentobarbital, paradichlorbenzene, amyl acetate, and sovasol. Murphy, Jas. B., and Sturm, E., *173, 278
—— malignant hemangioendothelioma of liver. Edwards, J. E., *et al.,* 343
—— mammary adenocarcinoma, secretory changes initiated by pituitary lactogenic hormone. Eisen, M. J., 707
—— melanoma, genetics of susceptibility. Spangler, J. M., 559
—— neoplasms, importance of dosage in intradermal immunization against. Gross, L., *770, 881
—— sarcoma, effect of climate on growth. Wallace, E. W., 556
—— squamous cell carcinoma of rabbit. Greene, H. S. N., and Brown, W. H., *53, 142
—— tumors, anaphylaxis and hemorrhage. Barrett, M. K., **122, 277
—— —— effect of rate of freezing on survival. Snell, G. D., *et al.,* 490
—— —— inducing proteose changes in blood. Winzler, R. J., and Burk, D., **135
—— —— radiation inducing resistance to. Goldfeder, A., 708
Trapezius muscle, myoblastoma. Tuta, J. A., *et al.,* 566
Trapp, E., 714
Trasoff, A., *et al.,* 642
Trauma and cancer. Carson, W. J., 418
Traut, H. F. *See* Papanicolaou, G. N., 792
—— *See* Stromme, W. B., 564
Treadwell, A. deG., *et al.,* 344
Tremor, V. F., 726
Triphenylethylene, distribution in mamma and in mammary cancer induced by it. Perry, I. H., Strait, L. A., and McCawley, E. L., *378, 489
—— injection inducing testicular tumors. Gardner, W. U., *92, 208
True, O. H. *See* Calkins, L. A., 638
Tuberculoid reaction in ovarian dysgerminoma. Heller, E. L., 563
Tuberculosis, pulmonary, with lung carcinoma. Martin, A., *et al.,* 721
—— regional pelvic lymphatic glands in carcinoma of cervix uteri. Rivett, L. C., *et al.,* 720
Tuboi, S., 343
Tuell, J. I., 804
Tulley, T. J. *See* Mayneord, W. V., 883
Tumor clinic. Kenney, J. F., 728
Turkey and guinea fowl infection by Rous sarcoma virus. Duran-Reynals, F., *569, 707
Turnbull, F., 567
Turner, E. L. *See* Shoulders, H. S., 491, 635
Turner, J. C., *et al.,* 207
Turner, J. W., 492
Turner, O. A., *et al.,* 637 (2 abs)
Tuta, J. A., *et al.,* 214, 349, 566, 727, 798, 806
Tuthill, C. R., *et al.,* 717
Twombly, G. H., *et al.,* 711, 728
—— *See* Dean, A. L., 422
—— *See* Taylor, H. C., Jr., **131, *180, 276
Tyler, A. F., 72
Tyrone, C. H., *et al.,* 793
Tyson, T. L. *See* Herrick, W. W., 563

Uhlmann, E., *et al.,* 72
Uihlein, A., *et al.,* 726
Ulna, adamantinoma. Anderson, C. E., *et al.,* 280
Ultracentrifugation and extraction of mammary tumor inciter. Bryan, W. R., *et al.,* 341
Ultraviolet radiation, absence of hypervitaminosis D in mice after, Blum, H. F., *et al.,* 339
—— —— carcinogenesis with wave lengths 2,800–3,400 Å, temperature effect. Bain, J. A., Rusch, H. P., and Kline, B. E., *610, 708
—— —— deterrent effect on incidence of spontaneous mammary cancer in mice. Apperly, F. L., *et al.,* 208
—— —— different wave lengths, effect on tumor induction. Blum, H. F., 708
—— —— dosage and rate of tumor induction. Blum, H. F., Grady, H. G., and Kirby-Smith, J. S., **128, 558
Ultraviolet radiation, effect of *o*-aminoazotoluene. Rusch, H. P., and Kline, B. E., **128
—— —— employed at Buenos Aires Institute of Experimental Medicine, apparatus. Roffo, A. E., Jr., 714
—— —— inducing eye neoplasms and other lesions. Lippincott, S. W., *et al.,* 709
—— —— —— skin tumors. Grady, H. G., Blum, H. F., and Kirby-Smith, J. S., **128
—— —— intensity, effect on tumor induction. Blum, H. F., 708
—— —— limits of accuracy in carcinogenesis. Blum, H. F., *et al.,* 557
—— —— penetration into skin as factor in carcinogenesis. Kirby-Smith, J. S., Blum, H. F., and Grady, H. G., **128, 208
—— —— time of tumor development. Blum, H. F., 708
—— —— types and incidence of induced tumors. Grady, H. G., *et al.,* 558
—— —— wave length 2,537 Å, carcinogenicity. Blum, H. F., *et al.,* 558
—— —— —— —— 2,800–3,400 Å, carcinogenicity. Bain, J. A., and Rusch, H. P., *425, 558
—— —— spectrography, fat fraction of mouse milk and mammary glands. DeOme, K. B., 558
Unger, A., 796
Upham, R., *et al.,* 803
Urachus, benign and malignant lesions, and colloid carcinoma of bladder. Dreyfuss, M. L., 797
—— colloid adenocarcinoma. Hughes, P. B., *et al.,* 568
Urease activity, inhibition by irradiated benzpyrene. Mueller, G. C., and Rusch, H. P., *113, 210
Ureter and kidneys, influence of retroperitioneal tumors. Sweetser, T. H., 349
—— —— —— pelvis, carcinoma. Bothe, A. E., 422
—— carcinoma. Scott, W. W., 798
—— —— McRea, L. E., 885
—— —— complicated by congenital giant hydronephrosis, large bone metastasis. Sauer, H. R., 346
—— —— papillary. Scholl, A. J., *et al.,* 565
Urethra, carcinoma, female. Tuta, J. A., *et al.,* 798
—— —— male. Herger, C. C., *et al.,* 797
—— —— —— Zucker, M. O., *et al.,* 565
—— —— with priapism. Ikeda, K., *et al.,* 794
Urine, androgen and estrogen ratio and benign prostatic hypertrophy. Miller, M. L., *et al.,* 884
—— gonadotropin, assay in testicular tumor. Main, R. J., 795
—— hormone excretion, relation to testis tumors. Ferris, D. O., 794
—— leukemia, specific substances. Miller, F. R., *et al.,* 629
—— obstruction, presacral sympathicoblastoma in infant. Hepler, A. B., 788
—— steroids from breast cancer patients. Hill, B. R., *et al.,* 878
—— tract in cervical carcinoma. Markowitz, I., *et al.,* 720
Ursu, A. *See* Cracium, E. C., 784
Uterus, adenomyosis. Brines, O. A., *et al.,* 421
—— and cervix carcinoma, radium treatment. Dudgeon, H., Jr., 634
—— —— tubal serosa, mesotheliomas. Evans, N., 647
—— carcinoma. Brown, W. E., *et al.,* 345
—— —— Hurdon, E., 496
—— —— Watkins, R. E., *et al.,* 720
—— —— and granulosa cell tumor of ovary. Stohr, G., 568
—— —— —— sarcoma occurring simultaneously. Barnes, A. C., 807
—— —— at the Woman's Hospital, New York. Ward, G. G., 793
—— —— control. Macfarlane, C., *et al.,* 808
—— —— radiation therapy. Crockett, R. H., 633
—— —— —— —— Kaplan, I. I., 634
—— —— vaginal smears diagnosing. Papanicolaou, G. N., *et al.,* 792
—— cervix and breast carcinoma, radium treatment. Ill, E. A., 419
—— —— and fundus carcinoma. Maxfield, J. R., 720
—— —— carcinoma. Arneson, A. N., 790
—— —— —— Bowing, H. H., 718
—— —— —— Diddle, A. W., 719

Uterus, cervix carcinoma. Hoge, R. H., 719
—— —— —— Mooney, B. R., 720
—— —— —— Rawls, J. L., 720
—— —— —— conditions in urinary tract. Markowitz, I., *et al.,* 720
—— —— —— deep cauterization in prevention. Cashman, B. Z., 791
—— —— —— experimental, early diagnosis. Allen, E., Gardner, W. D., and Collins, V. J., **124
—— —— —— incidence according to nationality. Smith, F. R., 793
—— —— —— intravaginal and rotation therapy. Faust, J. H., 634
—— —— —— irradiation. Cosbie, W. G., 787
—— —— —— —— Kerr, H. D., 713
—— —— —— —— Reinhard, M. C., *et al.,* 713
—— —— —— —— Teahan, R. W., *et al.,* 344
—— —— —— —— pervaginal. McAlister, L. S., 787
—— —— —— pregnancy complicating. Kirtz, L. P., *et al.,* 345
—— —— —— radium dosage and supplementary roentgen irradiation. Jones, H. W., 491
—— —— —— —— treatment. Trapp, E., 714
—— —— —— —— treatment, granulosa cell tumor of ovary following. Tyrone, C. H., *et al.,* 793
—— —— —— radon treatment. Simpson, F. E., *et al.,* 344
—— —— —— stump. Cantril, S. T., *et al.,* 719
—— —— —— stump. Watkins, R. E., 793
—— —— —— Wertheim's hysterectomy, tuberculosis of regional pelvic lymphatic glands. Rivett, L. C., *et al.,* 720
—— —— immature botryoid tumors. Simpson, E. E., 564
—— —— intestinal obstruction. Pearson, B., *et al.,* 638
—— —— polyps, metaplasia and carcinoma. Mezer, J., 211
—— endometrial polyploid fibrosarcoma. Lomax, J., *et al.,* 792
—— fibroids and external and internal endometriosis (adenomyosis), incidence of endometrial hyperplasia. Henderson, D. N., 791
—— —— cell rest. Peale, A. R., *et al.,* 563
—— —— pregnancy. Thompson, G. G., 720
—— fibromyoma, sarcoma in. Goldberger, M. A., 884
—— fundus, carcinoma. Brindley, G. V., 718
—— —— —— Resnisky, A. F., 211
—— leiomyomas, mitotic activity. Hartz, P. H., *et al.,* 421
—— leiomyomyxosarcoma. Simon, H. J., 792
—— leiomyosarcoma, and papillary carcinoma of ovary, simultaneous. Major, J. W., 418
—— —— —— ramifying angiomyoma. Gnassi, A. M., *et al.,* 808
—— mesodermal mixed tumors. Lebowich, R. J., *et al.,* 638
—— nonmalignant, bleeding, radiation therapy. Barr, R. E., 633
—— regenerative and pathologic growth. Gruenwald, P., 421
—— round ligament, five tumors including capillary hemangioma. Schnedorf, J. G., *et al.,* 564
—— tube, dermoid cyst. Aaron, J. B., 790

Uvula and tonsil, papilloma. Henner, R., 799

Vacuoles, nucleolar, in living normal and malignant fibroblasts. Lewis, W. H., *531, 630
Vagina and abdomen, total hysterectomy. Danforth, W. C., 791
—— metastasis from hypernephroma. Kurzrok, L., *et al.,* 645
—— myoma. Bennett, H. G., Jr., *et al.,* 790
Vail, D. *See* Asbury, M. K., 807
Valls, J. E., 728
van Buchem, F. S. P., 348
van der Sar, A. *See* Hartz, P. H., 567
Vargas, L., Jr. Experimental fibroids in hypophysectomized female guinea pigs, *309, 414
Vermeulen, C. *See* Scott, W. W., 631
Vermooten, V. *See* Neuswanger, C. H., 638
Vesicle and renal neoplasms. Schulte, T. L., *et al.,* 646
—— malformations and tumors, spinal cord. Turner, O. A., *et al.,* 637
Victor, J. *See* Potter, J. S., 561
Vieta, J. O., *et al.,* 806
Villanueva, A., 796
Vinson, P. P., *et al.,* 722 (2 abs)
—— *See* Nofsinger, C. D., 348
Virus and enzyme theory of carcinogenesis. Potter, V. R., *358, 490
—— neoplastic, increases in V2 carcinoma during propagation in virus-immune hosts. Kidd, J. G., 556
—— Shope rabbit fibroma, transformation into Sanarelli infectious myxomatosis virus. Houlihan, R. B., 708
—— substance producing mammalian tumor. Taylor, A., 556
Virus, papilloma. *See* Papilloma
Virus, sarcoma. *See* Sarcoma
Visscher, M. B., 627
—— *See* Ball, Z. B., **131
Vitamin A and toxic action of dibenzanthracene on tissues. Goerner, A., and Goerner, M. M., *833, 880
—— —— in rat livers as affected by dibenzanthracene administration. Abels, J. C., *et al.,* 486
Vitamin B. *See also* Biotin, Pantothenic acid, Pyridoxin, Riboflavin
—— —— content in malignant neoplasms. Taylor, A., *et al.,* 490
—— —— inhibiting production of liver cancer with *p*-dimethylaminoazobenzene. Miner, D. L., Miller, J. A., Baumann, C. A., and Rusch, H. P., *296, 416
Vitamin B_6 and pantothenic acid, influence on growth of sarcoma 180. Bischoff, F., *et al.,* 628
Vitamin C and tumor growth. Brunschwig, A., *550, 627
Vitt, A. E., *et al.,* 565
—— *See* Werner, A. A., 565
Voegtlin, C., 632
von Recklinghausen's disease and auditory neurinomas. Hadley, H. G., 788
—— —— relation of optic nerve tumors. Gomes, J. P., 717
Vulva, adenocarcinoma. McDonald, J. R., *et al.,* 792
—— basal cell carcinoma. Berman, W., 791
—— benign tumors. Lovelady, S. B., *et al.,* 792
—— carcinoma. Teahan, R. W., *et al.,* 422

Waber, H. M., *et al.,* 714
Wade, J. L., *et al.,* 807
Wadsworth, C. *See* Kensler, C. J., *823, 880
Wagener, H. P. *See* Craig, W. McK., 492
Wahl, H. R., *et al.,* 640
Walker, G. A. *See* Neff, F. C., 645
Walker, R. H., 803
Wallace, E. W., *et al.,* 556
Wallace, H. M. *See* Wallace, E. W., 556
Wallace, W. S., *et al.,* 640
Wallis, O., 349, 793
Walter, E. M. *See* Amersbach, J. C., 277
Walters, W., 803 (2 abs)
—— *See* Robertson, H. E., 727
—— *See* White, R. R., 726
Wammock, H. *See* Teahan, R. W., 344, 422
Ward, E. N. *See* Potter, J. S., 561
Ward, G. G., 793
Ware, A. G. *See* Hill, R. M., *839, *841, 879
Warner, S. G. *See* Hoffman, J. G., *237, 341
—— *See* Hoffman, J. G., **126
Warren, C. O. Tissue metabolism studies on bone marrow. Consideration in relation to tumor metabolism, *621, 710
Warren, S. The distribution of doses of radioactive phosphorus in leukemic patients, *334, 415
—— The retention of radioactive phosphorus in leukemic patients, *872, 881
—— *et al.,* 345, 419, 492, 562, 564, 636, 803
—— *See* Dunlap, C. E., *606, 706
Warren, S. L., Dascomb, H. E., and Berry, G. P. The effect of x-rays upon virus-induced papillomas of cottontail rabbits, **128
—— *See* Ariel, I., *448, 556, *454, *464, 557 (2 abs)
—— *See* Steadman, L. T., *471, 557
Warren, V. C., *et al.,* 717
Warvi, W. N. *See* Warren, S., 636
Waterbury Hospital, Connecticut, carcinoma of large bowel. Collins, J. O., 721
Watkins, R. E., *et al.,* 720, 793

Watkins, S., 800
Watson, B. P. *See* Herrick, W. W., 563
Watson, W. L., 423, 726
Waugh, J. M., *et al.,* 564, 726 (2 abs)
—— *See* Lovelady, S. B., 792
—— *See* McDonald, J. R., 792
Wear, J. B., *et al.,* 798
Weatherwax, J. *See* Teahan, R. W., 344
Weber, H. M., *et al.,* 419, 714
Weber, J. J. *See* Wehrbein, H. L., 646
Weed, J. C. *See* Tyrone, C. H., 793
Wehrbein, H. L., *et al.,* 646
Weigert, F., 207
—— *See* Doniach, I., 626 (2 abs)
—— *See* Mottram, J. C., 338
Weil-Malherbe, H., *et al.,* 627
—— *See* Dickens, F., *73, 209
Weinberger, L. M., *et al.,* 788
Weinberger, N. S., 800
Weinstein, G. J. *See* Zucker, M. O., 565
Weiss, J. *See* Weil-Malherbe, H., 627
Welch, C. E. *See* Allen, A. W., 722
Welker, W. H. *See* Mann, L. S., *193, *196, 278 (2 abs)
Weller, C. G., 796
Wells, E. B. *See* Syverton, J. T., **124
Wells, H. G., 565
Werba, D. R. *See* Mitchell, H. C., 721
Werner, A. A., *et al.,* 565
Werthessen, N. T. *See* Smith, J. T., 793
Westman, C. *See* Lövgren, O., 215
Weston, S., 214
Wetherell, F. S., 215
Whalen, E. J., 344
Wheelock, M. C., *et al.,* 565, 796
Whipple, A. O., 728
White, F. P., *et al.,* 141
White, J., *et al.,* 338 (2 abs), 417, 554, 707, 710
—— **and Andervont, H. B.** The effect of a diet relatively low in cystine on the production of spontaneous breast tumors in virgin C3H mice, **129
—— **and Edwards, J. E.** Effect of dietary cystine on the production of hepatic tumors by the oral administration of *p*-dimethylaminoazobenzene, **129, 340
—— **and Mider, G. B.** Effect of certain dietary constituents on the incidence of leukemia produced by methylcholanthrene in dilute brown mice, **129
—— *See* Edwards, J. E., 561
—— *See* Greenstein, J. P., **120, 416
—— *See* White, F. P., 141
White, R. J., 643
White, R. R, *et al.,* 726
White, T. N. *See* Edwards, J. E., 561
Whittington, C. T., 565
Wicks, L. F., *et al.,* 555
Wigley, J. E. M., 715
Wiig, L. M., *et al.,* 727
Wikle, H. T., *et al.,* 349
Wilcox, E. A. *See* Ginsberg, S. T., 723
Wilcox, L. E., *et al.,* 726
Wilder, H. C. *See* Ash, J. E., 788
—— *See* Callender, G. R., 789
Wile, S. A., 728
Wilkerson, W. W., Jr., 728
Willetts, A. T. *See* Chute, R., 422, 638
Williams, C., *et al.,* 720
—— *See* Bloom, N., 722
Williams, G. Z., *et al.,* 709
Williams, H. W., *et al.,* 717
Williams, J. T. *See* Williams, G. Z., 709
Williams, R. J. *See* Taylor, A., 490
Willis, R. A., 804
Wilson, H., 423
Wilson, W. D. *See* Mayo, C. W., 725
Wintermantel, J. A. *See* Moss, L. D., 720
Winzler, R. J., and Burk, D. Proteose changes in rat blood induced by transplantable and primary tumors, **135
Wisconsin, cancer. Keettel, W. C., 808
Wisconsin General Hospital, prostatic surgery. Sisk, I. R., *et al.,* 796
—— —— —— roentgen therapy in breast cancer. Pohle, E. A., 72
Wise, G., 789
Wiseman, B. *See* Taylor, W. N., 348
Wislocki, G.. *See* Aub, J. C., **120
Wolfe, J. M., and Wright, A. W. A comparative histological study of the anterior hypophyses and the ovaries of two strains of rats, one of which is characterized by a high incidence of mammary fibroadenoma, *497, 631
Wolfe, S. A., *et al.,* 793
Wolfer, J. A., 726, 808
Wolferman, S. J., 719
Wolff, E. *See* Tomlinson, W. J., 347
Woltman, H. W., *et al.,* 636
Womack, N. A., *et al.,* 279, 643
Woman's Hospital, New York, carcinoma of corpus uteri. Ward, G. G., 793
Wood, D. A., and Darling, H. H. A cancer family manifesting multiple occurrences of bilateral carcinoma of the breast, *509, 633
—— *See* Newell, R. R., 644
Woodard, H. Q. Some anomalies in the occurrence of alkaline glycerophosphatase, **132
—— The glycerophosphatases of the rat liver cancer produced by feeding *p*-dimethylaminoazobenzene, *159, 277
—— *et al.,* 142
—— *See* Dean, A. L., 422
Woodhouse, D. L. *See* Lasnitzski, A., 337
Wookey, H., 423
Woolf, M. S., 726
Woolley, G. W., *et al.,* 632
—— **Fekete, E., and Little, C. C.** Observations on the adrenals of castrate mice and the relation of these adrenals to cancer, **120
—— **Law, L. W., and Little, C. C.** Further data on the occurrence in whole blood of material influencing the incidence of mammary carcinoma in mice, **122
Word, B., *et al.,* 421
Wright, A. W. *See* Wolfe, J. M., *497, 631
Wyckoff, H. *See* Newell, R. R., 644
Wyman, S. *See* Young, E. L., 643

Xanthoma, knee joint. O'Donoghue, D. H., 347
X-ray. *See* Radiation

Yardumian, K. Y. *See* Ohlman, I. L., 808
Yarnis, H., 886
Yeast and liver fractions protecting against *p*-dimethylaminoazobenzene carcinogenicity. Sugiura, K., Kensler, C. J., and Rhoads, C. P., **130
Yolk sac, chick embryo, cancer growth. Taylor, *et al.,* 556
—— —— cultivation of tumors. Taylor, A., Hungate, R. E., and Taylor, D. R., *537, 629
—— —— —— —— tumors, effect on hemoglobin level in embryonic chick. Taylor, D. R., McAfee, M., and Taylor, A., *542, 629
Young, B. R., 420
Young, E. L., *et al.,* 643

Zahl, P. A., *et al.,* 629, 710
—— *See* Hutner, S. H., 880
Zelman, J. *See* Samson, P. C., 725
Zemke, E. E., *et al.,* 793
Zieman, S. A., 420, 562
Zimmerman, H. M. *See* Arnold, H., *682, 784
Zinninger, M. M. *See* Shapiro, N., 280
Zon, L. *See* Shimkin, M. B., 629, 632, 886
Zondek, B., Mandl, F., Sulman, F., Brezezinski, A., and Tietz, H. G. Heterotransplantation of human pseudomyxoma peritonei into mice and rats, *198, 278
Zucker, J. M., *et al.,* 884
Zucker, M. O., *et al.,* 565
Zugrăvescu, I. *See* Cracium, E. C., 784